THE BOSTON
Medical and Surgical
JOURNAL

VOLUME 197 DECEMBER 1, 1927 NUMBER 22

ORIGINAL ARTICLES

MISTAKES WE MAKE IN THE DIAGNOSIS AND TREATMENT OF PULMONARY TUBERCULOSIS*

BY HENRY F. STOLL, M.D.

My interest in tuberculosis began twenty-five years ago this Fall when, as a junior intern at the Hartford Hospital, I spent part of each day at the tuberculosis annex, now known as Wildwood Sanatorium. During this quarter of a century many of our ideas concerning tuberculosis have changed, some of them more than once.

Now there is nothing so disturbing to one's self-complacency as a new idea, especially if it demolishes some long-cherished belief. One must refuse to accept it, which is always easiest, or reassemble all the facts in the case and think —and I'm sure you will agree with me that thinking, as a pastime, isn't as popular as golf, for instance. In fact, it has been said that often when we believe we are thinking we are, in reality, only rearranging our prejudices.

Perhaps I should apologize for my title, as it may be thought unseemly to discuss mistakes—save behind closed doors. Yet, to honestly recognize a mistake is the best guarantee that it will not be repeated. In considering my mistakes in the diagnosis and management of tuberculosis and those of others that I have observed, it is apparent that they fall into one of three groups. (1) Diagnosis of tuberculosis on insufficient evidence; (2) failure to detect tuberculosis when present; (3) mistakes in the management of a case after the diagnosis is made.

So much has been said and written these past twenty-five years on the need for early diagnosis that it is not to be wondered at that the over-zealous and those of limited experience will sometimes make a diagnosis of tuberculosis when it does not exist. It is true that the harm done is less than when the early case is unrecognized, but for a man to give up his business, break up his home and spend anxious months in "curing" for a disease he is not suffering from cannot be lightly dismissed with the statement that, after all, the rest in the open air did him no harm.

We sometimes lose sight of the fact that the well-known constitutional symptoms that are usually present in tuberculosis occur in other diseases and that, unless they are supplemented by certain "key" symptoms or signs, they are never more than suggestive. These constitutional symptoms might well be referred to as "paradoxical symptoms" in that unsupported by other evidence they are not diagnostic, while on the other hand their presence is required to justify the diagnosis of active disease. In like manner undue significance is sometimes attached to certain physical signs—such as slight dulness, harsh or cog-wheel breathing, scattered and inconstant râles that are of little or no significance. Even persistent apical râles and positive x-ray findings indicative as they usually are of a tuberculous lesion, might be referred to as "paradoxical signs" in that, unaccompanied by constitutional symptoms, a life free from excesses is all that is required, but when constitutional symptoms are present they become the "key" evidence that active treatment is indicated.

A frequent source of mistake is due to lack of thoroughness in making the examination and unfamiliarity with the correct method of eliciting physical signs. For instance, some years ago a patient with arrested tuberculosis took up her residence in a distant city. She wrote me in considerable perturbation, due to the fact that when she had an examination in her new home the physician did not have her cough and consequently found no signs of trouble. She knew the location of her lesion and appreciated the fact that râles were only heard following a cough. I suggested that at the next examination she "happen to cough" as her physician was auscultating the site of her lesion. This she did, and she wrote that he evinced great interest after the first cough and throughout the remainder of the examination frequently asked her to cough.

Malignant disease of the lungs, chronic sinusitis, pulmonary abscess, hyperthyroidism and subacute bacterial endocarditis would not be labeled tuberculosis if the history and examination were thoroughly made. Let me illustrate

*Presented before the annual meeting of the Connecticut State Medical Society, Hartford, May, 1927.

with some of the mistakes I have made and observed that others have made.

Ten years ago an unmarried woman of thirty-nine was referred to me by her physician as he suspected tuberculous pleurisy. Two months previous she had had grippe and at this time had a cough for several weeks and a slight fever for a short time. For at least six months she had been very nervous and "all in", somewhat short of breath, considerable lack of strength, occasionally a sharp pain in her left chest while playing golf and once she perspired at night. The most prominent symptom was the great exhaustion of long standing. On examination she exhibited slight retraction at the right apex, increased voice conduction interscapularly and a few, scattered râles over the left lower lobe behind. The outstanding things, then, were pronounced fatigue, recent cough, retraction at the right apex and râles at the left base. X-ray was not taken at this time—mistake number one. I sent her away to a distant state with a diagnosis of tuberculous pleurisy. She spent nearly a year under the care of an eminent tuberculosis specialist, returning somewhat improved in health, but was soon again limp with no ambition. Again she made a pilgrimage to the same health resort at an expense she could ill afford and again returned temporarily improved. It was not until she once more relapsed that I appreciated the importance of certain social and domestic aspects in her case. Mistake number two was limiting my investigation to the pulmonary condition. Her father had been dead for some years and she took sole care of an invalid mother. Her only sister was insane and she herself had severe periodic headaches that worried her greatly. Her only brother had proved to be somewhat of a disappointment. She moreover had had a hysterectomy performed some years before. Her girl friends were married and living in homes of their own, while her future seemed very drab and uninteresting. It was not until she became interested in a new home in the country and driving an automobile that she began to improve. Subsequently an x-ray taken of her chest showed no evidence whatever of either recent or ancient tuberculosis. Review of her case shows that there was, of course, no justification for a diagnosis of tuberculosis as her constitutional symptoms were not accompanied by any "key" symptoms or "key" physical signs, which will be referred to later on. She spent many months away from home at an expense she could ill afford "curing" a disease that she did not have.

While it is true that symptoms alone are sometimes misleading in the diagnosis of tuberculosis, it frequently happens, on the other hand, that they are often most suggestive, in fact sometimes diagnostic in patients with non-tuberculous pulmonary diseases.

For instance, a couple of years ago I examined a rather frail, undersized boy, who was subject to frequent colds accompanied by a severe cough, to ascertain whether he should continue at school in New England or should go to the Southwest, tuberculosis being suspected. He was doing well scholastically, but his parents were willing to make the sacrifice necessary to the change of climate if it was deemed wise. Examination of the lungs was entirely negative and there was no interscapular whisper (D'espine's sign). Further inquiry, however, developed the fact that the colds invariably began in the head, that they were accompanied by a great deal of nasal discharge and quite frequently by unilateral headache; in fact, at the time I examined him he was tender over the right frontal sinus. A fact of great significance was that with his colds he always required many handkerchiefs and that the discharge was purulent. X-ray showed extensive sinus disease. When adequate drainage was secured the cough disappeared and he has been practically free from colds for the past two years, although he has remained in New England.

It does not seem to be generally appreciated that acute and chronic sinus infection is frequent in children as well as in adults and that the secondary symptom of cough is often more evident than the symptoms due to the sinus disease, per se.

A year and a half ago I saw a married woman of about thirty-five in consultation, who had been running down for about a year, and coughing for six weeks. She had "caught cold" and the cough was very troublesome. She had been running a temperature of about 99 to 99.4 daily since the "cold" and gave a history of being easily tired for a long time previously. She was exceedingly active in social educational and church affairs and somewhat emotionally unstable. At the time I saw her she was well nourished; in fact, of robust appearance. She exhibited very few physical signs, chiefly scattered râles over the lower lobes. Twenty years previously she had spent thirteen months at Trudeau. An examination of the sputum a few days before I saw her was reported positive for tubercle bacilli. She was accordingly kept in bed several weeks although at no time were conclusive physical signs evident. Four months later stereoscopic chest x-ray was entirely negative for tuberculosis. As she gave a history of many head colds, the sinuses were investigated and found to be infected. Treatment for the sinus trouble helped her greatly. In this case the mistake was made in the laboratory.

We are apt to feel that laboratory reports are infallible but mistakes occasionally occur and it is always desirable to have more than one examination of the sputum made and consider as negative "suspicious" and "questionable" reports. I recall a lad in the army who presented neither physical signs nor x-ray evidence of tuberculosis, yet who was sent to a sanatorium because a technician of limited experience reported a few bacilli in one specimen of sputum.

An unmarried woman of thirty-one had her routine physical examination in college a year ago, at which time râles were heard over the left lobe behind. At this time she had no cough and was perfectly well as far as she knew. She had had no illness since whooping cough twelve years previously. When I examined her she showed many moist râles from the lower angle of the left scapula to the base and some increased whisper, suggesting a subsiding bronchopneumonia which the history, however did not substantiate. The x-ray revealed old pleural adhesions of the left base and certain rather "cottony" shadows in the middle portion of the lung fields. The question to decide was a very important one;—should she continue her work in college or take the "cure" for tuberculosis? Bear in mind that although at this time she had no symptoms whatever, temperature, weight, appetite, etc. being entirely normal, she had many moist râles at the base and in the x-ray, old adhesions and "cottony" shadows. Further questioning, however, elicited the fact that during and after her whooping cough she had a profuse expectoration for several weeks and that careful lung examination made prior to the whooping cough showed them to be normal. Now whooping cough is not accompanied by profuse expectoration; accordingly, she undoubtedly had some bronchiectasis or small

lung abscesses at this time. Lipiodol injection (Figure 9) revealed typical glove finger dilatation behind the heart and subsequent observation demonstrated that she did not have tuberculosis.

The two "key" symptoms in the diagnosis of tuberculosis are (1) a history of pleurisy with effusion and (2) a hemorrhage of a dram or more. In the series of one thousand cases reported by Heise and Brown, nine out of every ten cases having hemoptysis showed a definite parenchymatous lesion in the lung upon x-ray examination. Accordingly, tuberculosis should always be assumed to be the cause of pulmonary hemorrhage unless, after careful study, some other cause can be found. One occasionally meets with hemorrhage in patients where the x-ray fails to show the site of the bleeding yet the subsequent evidence demonstrates its tuberculous nature.

Two years ago I saw a young married woman who, following a chlorine treatment for a cold, had had a large pulmonary hemorrhage. A repetition of this treatment two days later was again followed by copious bleeding. In all, she had four hemorrhages totalling over one thousand c.c.s of blood. She was a particularly robust girl, although she had coughed for many years. She had spat blood a number of times and more than once tuberculosis had been suspected; in fact, she spent several months in a sanatorium. Her sputum was profuse and shortly before I saw her had been foul. She was bleeding so freely and was so exsanguinated it was deemed wise to transfuse her. Subsequent x-rays following Lipiodol revealed well marked bronchial dilatation of the left lower lobe. Further inquiry revealed that the cough began with pneumonia in her sixth year, which was evidently associated with an abscess and bronchial dilation.

For a number of years I saw from time to time a middle-aged married woman with an extreme degree of mitral stenosis. She became easily decompensated and these periods of heart failure were invariably initiated with cough and at such times she exhibited râles, chiefly over the lower lobes. In childhood she had had "scrofula" resulting in scars in her neck, bone disease and scarring of the corneae. The last time I was called to see her she was again fibrillating very badly and exhibited rales. I did not attach any significance to the fact that the râles were more marked over the upper lobe than previously. My embarrassment can be readily imagined when, after admission to the hospital, many tubercle bacilli were found in the sputum. The association of tuberculosis and mitral stenosis, while very uncommon, may occur.

Seventeen years ago a man of sixty-two complained of a cough "off and on" for five years, especially marked during the last two months. He had recently had the "grippe," lost considerably in weight during the preceding four years, the appetite was poor, he was somewhat short of breath and complained of weakness. Fine râles were present over a considerable part of both lungs both front and back. I was influenced unduly in making a diagnosis of probable tuberculosis by the fact that his wife had "coughed for years," his stepmother had tuberculosis and in the house where he was living at the time I saw him a death from tuberculosis had occurred less than two years before. He moreover gave a positive skin tuberculin test. In reviewing the case many mistakes were made. In the first place the symptoms, while suggestive, were by no means conclusive. He had lost a great deal of weight but, as he had been very much overweight, this was not of great moment. Dyspnoea is perhaps the most frequent evidence of the failing myocardium and this should be suspected in individuals past sixty. The character of the râles was rather against their being due to tuberculosis. They were very fine and scattered widely over both lungs at the first examination and subsequently were heard chiefly at the sides of and over the sternum (sternal sounds). We now know that positive skin tuberculin test, in an adult is of no diagnostic significance whatever. Some time afterwards he was put upon digitalis with much benefit. Although he was under observation for a number of years, he never developed any further signs of tuberculosis, finally dying after a hemiplegia of angina pectoris. An x-ray was not taken, as this diagnostic aid was not used very much seventeen years ago.

A man of forty-eight complained of pain and soreness over the front of his chest. For several months he had had a cough, which was especially marked after meals. He stated that it was painful to swallow food. He had grown gradually weaker and at the time of my examination looked seriously ill. He was quite hoarse and from the history of pain, cough, weakness and hoarseness I felt almost sure that he had pulmonary tuberculosis with secondary laryngeal involvement. Great was my surprise at being unable to find any sign of pulmonary disease. When carefully inspected in an oblique light, a slight but definite pulsation was evident in the first interspace to the left of the sternum. There was also a slight systolic shock here, but no murmur. The left vocal cord was in the cadaveric position. Accordingly, a diagnosis of aneurysm of the transverse aorta was made, which was confirmed radiographically. (Figure 1.) The blood Wassermann test was strongly positive.

A middle-aged man had "doctored" a great deal and for several months had been under the care of a "stomach specialist." Probably due to the fact that the stomach is situated wholly below the diaphragm, no investigation was made of the thoracic viscera. After treatment for his stomach for several months, another physician decided that he had pulmonary tuberculosis because of cough, shortness of breath, weakness and pain in the chest. Accordingly, an application blank for admission to a sanatorium was made out. By this time, being interested in the collection of medical opinions, he saw Dr. Turkington, of Litchfield, who recognized an aneurysm about the size of a large grape fruit and referred the case to me.

The cases of Muriel J. and Simeon F. were of more than usual interest.

The former, an unmarried woman of twenty-eight came to me one and one-half years ago complaining of a cough of several months duration and slight pains in various parts of the chest. Her appetite was excellent and she weighed one hundred and sixty-four pounds, which was her average weight although she had been dieting as she had recently been overweight. She was unusually robust in appearance but was apprehensive because a sister had recently developed tuberculosis and she, herself, had been nursing at a tuberculosis sanatorium. She exhibited no abnormal signs whatsoever in her lungs and, because she was subject to frequent colds, with a purulent nasal discharge she was advised that the cough was due probably to sinus infection. About three months later her cough increased and prior to her admission to the hospital she was having paroxysms that would last for four to five minutes nearly every half hour. She raised perhaps a dram of sputum a day,

which was occasionally blood streaked and ran a fever of 100 to 101. It was thought by the physician who sent her to the hospital at this time that she had a pulmonary abscess, as there were a few râles present over the middle of the right lung behind and some increased voice conduction. The report of the x-ray (Figure 7) was "Apparent cavitation in right hilum surrounded by area of partial consolidation, giving a general appearance of a pulmonary abscess with no fluid level, (possibly tuberculous)." To the surprise of everyone, tubercle bacilli were found several times in the sputum.

In this case I was undoubtedly influenced unconsciously by the very robust appearance of the patient and her entirely negative physical examination, notwithstanding the fact that I have repeatedly seen tuberculosis associated with seemingly perfect health. The second mistake was in not examining her sputum when I first saw her. Although she apparently was not raising, a specimen could probably have been obtained. Failing to obtain sputum, I should of course have had her chest x-rayed. The great majority of tuberculous lesions occur in the upper lobe; yet, the lower lobe is affected so frequently that we must always be on our guard.

Simeon F., aged twenty-seven, a colored boy, had had fever and pain in his chest for three days and the day before I saw him he had had a large pulmonary hemorrhage. He had had no chill. Eight years before he had had an attack of pneumonia and his health had not been as good since and for this reason he came North. There had been no night sweats and since coming North his health had been better. The history very strongly suggested tuberculosis. The physical signs, however, were over the lower lobe and the x-ray (Figure 8) report was "Area consolidation in the lower left lobe, possibly pneumonic, malignant or gummatous change." Repeated examinations of the sputum were negative. The patient's temperature promptly subsided and the condition proved to be pneumonia.

Cases have already been cited that illustrate the great value, in fact, the absolute indispensability of the x-ray in making a diagnosis in certain cases; several of my worst mistakes would have been avoided had an x-ray been taken when the patient was first seen. Yet positive diagnoses of tuberculosis are made with great frequency by "radiologists" whose confidence greatly exceeds their experience, their opinion being based upon such findings as "thickening of the bronchi, heavy hilum shadows, increased lung markings, beading, enlarged bronchial glands," etc. Often the negative is so poor as to be utterly worthless. Malignant growths of the lung and pneumoconiosis are sometimes diagnosed tuberculosis even by those of large experience and tuberculosis is sometimes called abscess of the lung or bronchopneumonia.

Radiologists of large experience appreciate the importance of correlating their findings with the history. Recently a youth had a positive diagnosis of tuberculosis made and was sent to a sanatorium and a claim filed for compensation because of a "soft" shadow about the size of an English walnut just above the right hilum: yet the history was that of an acute infection and the prompt subsidence of the shadow within a few weeks excluded its tuberculous origin. Many such cases could be cited.

Important as the diagnosis is, the advice we give and the treatment we institute will determine in large measure whether our patient will be restored to health again. Accordingly we must avoid certain common mistakes lest a fatality rather than a recovery result.

MISTAKE NO. 1.—FAILURE TO APPRECIATE THE NEED OF ABSOLUTE REST

No patient with active tuberculosis will be harmed by one month of absolute rest. Most patients will be greatly improved if the rest period is at least twice that time and six months or more will sometimes prove life saving. Rest is as essential as fresh air.

MISTAKE NO. 2.—OVER-FEEDING

Patients continue to be "stuffed" notwithstanding the fact that we have long since learned that our automobile has a much better "pick-up" if we cut down the "gas" to the point where combustion is most complete. The correct amount of food, Lawrason Brown says, is "the smallest amount that will enable a patient to gain, up to and slightly beyond, his normal weight."

MISTAKE NO. 3.—FAILURE TO TEACH THE PATIENT ABOUT HIS DISEASE

Explaining the need of rest, the harm from over-exercise and the great danger of mistaking improvement for recovery. We must help our patients to "carry through." It is not enough to "keep your eye on the ball"; you must "carry through" to get distance. Time and again an initial improvement is lost and the discouragement that results proves too great for another effort, just because we failed to show him how to "carry through."

MISTAKE NO. 4.—FAILURE TO RECOGNIZE SYMPTOMS SUGGESTING A COMPLICATING INTESTINAL TUBERCULOSIS

No longer should we wait for a depleting diarrhoea before suspecting this condition because if recognized early, recovery often takes place.

What are the symptoms that should excite our suspicions? Stewart[1] found that failure to gain weight especially in a patient who has been doing well, loss of appetite and vague indigestion, increasing nervousness and irritability and sometimes constipation, occurring in a patient whose lung condition was improving or apparently stationary, pointed to involvement of the intestine. An x-ray will show the char-

acteristic hypermotility of the caecum in nearly all such cases. Treatment by the mercury quartz lamp,—or direct sunlight when possible, gives surprisingly good results as Brown and Sampson's[2] report on 360 patients shows.

33% were slightly or considerably helped.
25% were markedly benefited.
24% were apparently cured of their intestinal tuberculosis.

Treatment consisted of ultra-violet ray, ten minute exposure on four quarters of the body with the lamp at a distance of 12 inches and running at its greatest intensity. Treatment continued for at least ten months and often longer.

MISTAKE NO. 5.—NEGLECT OF DETAILS; LACK OF SPECIFICITY

So often some important thing is overlooked or forgotten in the management of a case of tuberculosis that I got up this simple questionnaire which is used by the tuberculosis nurse in her visits to the homes of the employees of a certain industrial plant.

No. of hrs. in "curing" . . . No. of hrs. in bed . . .
Has patient — protected veranda . . . comfortable "cure" chair . . . warm clothing . . . adequate blankets . . . enough food . . .
Windows sufficiently open . . .
Type and amount of exercise daily . . .
Cough,—unchanged . . . increased . . . diminished . . . recent blood spitting . . .
Is disposal of sputum satisfactory . . .
Do other members of the family appear to be in good health . . .
Temp. and pulse . . . Remarks and suggestions . . .

Such a chart saves much time and supplies a minimum amount of information that every physician should know about each of his patients with tuberculosis.

Too many physicians temporize and give such vague advice as "Now don't exercise too much" or "You really had better rest a good deal." Just how valuable is such advice?

In one instance, a girl remained in bed till eleven o'clock then arose, dressed, had luncheon and went out for a short walk or auto ride or spent the afternoon indoors with friends who would drop in, notwithstanding the fact that she had a daily fever and diarrhoea at this time. The fault was not hers, but the doctor's, who had failed to specifically state just what she was to do. In this case, the lack of specificity put the patient to bed for a year.

MISTAKE NO. 6.—NEGLECT OF OPERATIVE PROCEDURES OF PROVEN VALUE

In every case of tuberculosis that does not show improvement under the usual regime of rest, fresh air, etc., the physician should seriously consider the advisability of producing pneumothorax. When this cannot be accomplished, or has been only partially successful, phrenecotomy or thorocoplasty should be considered. If not familiar with the indication or contra-indication of these procedures, he should secure the advice of some one who is, because many lives can be saved by the proper employment of these measures. Rist's[3] statistics on pneumothorax are especially encouraging as they are controlled by a group in whom for lack of coöperation or inability to produce collapse, the natural results of the unchecked disease can be compared. 52% of 759 cases—desperately sick patients, bear in mind—who received pneumothorax treatment were "healed" (6.5%) or clinically well, symptom free, working, but still under treatment (45.5%); whereas only 8.5% of those who refused treatment on in whom it could not be carried out, were able to work. Rist also has found pneumothorax very valuable when tuberculosis complicates pregnancy. He thinks it safer than to induce an abortion.

Yet many die each year from tuberculosis, whose lives might have been saved by pneumothorax. It may seem incredible, but there are institutions wholly devoted to the care of tuberculosis where this life-saving procedure is not carried out. Notwithstanding that cases of tuberculosis are not accepted in most general hospitals, there is scarcely a time when the wards do not contain one or more such patients, often in the advanced stage of the disease, some suitable for pneumothorax treatment.

Inasmuch as it usually takes a month or two (in this state at least) to get such a case into a sanatorium, there should be someone skilled in the induction of pneumothorax on the hospital staff. This should be done during their stay in the hospital as the delay in getting into the sanatorium may cost the patient his life.

MISTAKE NO. 7.—"THE OUT-DOOR JOB"

After the "cure," a serious mistake is often made when we tell our patient to "get a job out-of-doors." Unless he works long hours at a very hard job or in a badly ventilated room, he will do better at the work he is familiar with than at a new job, with the uncertainty of success. Then, too, many out-of-doors jobs require much muscular effort which is usually undesirable.

I have had under my care for several years in one of the large industries in New England, a number of patients who have returned to their work following several months of taking the "cure." It has been most interesting to see how well they carry on and how few symptoms they have in any way referable to their pulmonary condition, notwithstanding the fact that in many instances extensive disease is present.

When a patient with early symptoms of tuberculosis seeks medical advice, what has he a right to expect from his doctor? If he has diphtheria and antitoxin is not administered; if he suffers from severe diabetes and does not

receive insulin; we will agree that he did not receive the most modern and efficacious treatment and the doctor in attendance would be severely censured. Is it too much to say that the victim of tuberculosis has a right to expect that the doctor is familiar, not only with the early signs of tuberculosis but with the modern methods of treatment as well?

REFERENCES

1 Stewart, D. A.: Trans. National Tuberculosis Asso., 1926, p. 154.
2 Brown, Lawrason; Sampson, H. L.: Jour. A. M. A., 1927, Vol. 88, p. 1472 (May 7).
3 Rist, E.: Trans. Nat. Tuberculosis Asso., 1926, p. 69.

FIGURE 1. Diagnosis of tuberculosis had been made shortly before x-ray was taken.
Patient had previously been treated by stomach specialist and aneurism not recognized.
Physical signs were very clear.

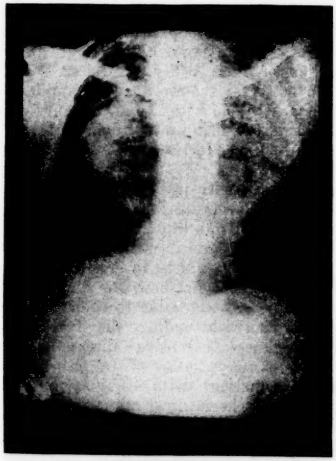


FIGURE 2. Extensive tuberculosis both lungs: pneumoconiosis right upper. Note similarity to 3 and 4.

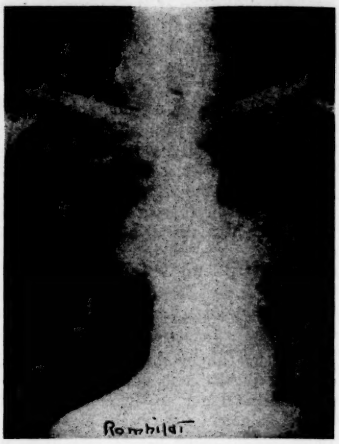


FIGURE 3. Patient sand-blaster for many years. Extensive pneumoconiosis. First x-ray opinion was pulmonary tuberculosis.

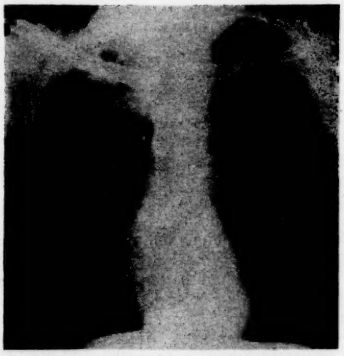


FIGURE 5. Abscess right apex suggestive of tuberculosis.

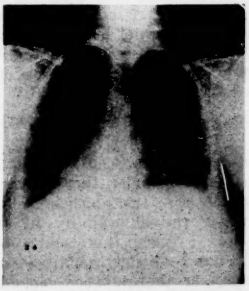


FIGURE 7. Very robust patient. Lesion in right base is suggestive of abscess. Note clear apices. Many tubercle bacilli in sputum.

FIGURE 4. Terminal stage pneumoconiosis. First thought to be very advanced tuberculosis from x-ray.

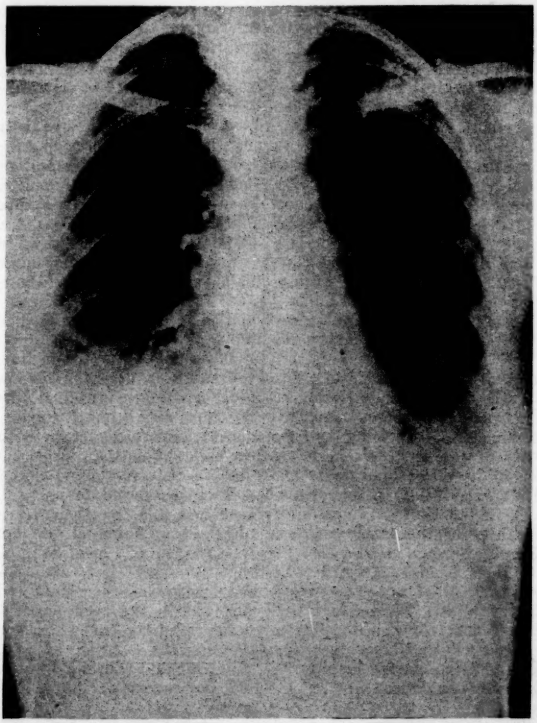


FIGURE 6. Pleurisy with effusion right base. The well marked infiltration below left apex gave no rales.

FIGURE 8. Rather frail adult. Onset of illness with hemorrhage. Non-tuberculous bronchial pneumonia left base.

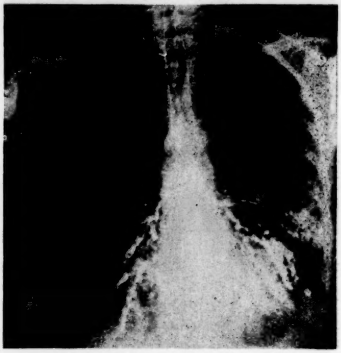


FIGURE 9. Bronchiectatic dilatation at bases especially on left, only apparent after lipiodol injection.

NEWER FUNCTIONS OF OUR STATE SCHOOLS FOR THE MENTALLY DEFICIENT

BY NEIL A. DAYTON, M.D.

In 1848 Massachusetts opened the first public institution in the United States for the care of mentally deficient children, thus publicly recognizing her duty to certain classes of feebleminded who could not be cared for in the community. In 1891 this institution was removed to Waverley, with the late Dr. Walter E. Fernald as Superintendent. Following Dr. Fernald's death Dr. Ransom A. Greene was appointed as Superintendent in 1925. In 1908 a second school was opened at Wrentham, under Dr. George L. Wallace, and in 1922 a third school opened its doors at Belchertown under the guidance of Dr. George E. McPherson. From the small school in South Boston the present state system has developed over a period of seventy-nine years, until at the present date we find the Massachusetts Department of Mental Diseases caring for nearly four thousand mentally deficient children.

The development of the present ideal as to the purpose of the schools has been extremely interesting. A tremendous impetus was imparted to the work of creating these schools by the foresight and teaching of Seguin. His keen enthusiam in the possibility of teaching the feebleminded inspired a similar belief in those interested in this work in the United States. The first schools were hopeful that their children could be trained and, after the usual school period, returned to their homes. As a general policy this plan did not prove to be the success anticipated. This was due to the fact that there was a rush, at first, for the accommodation of the most urgent cases. These were largely of the lower mental grades, many helpless because of physical defects or disease.

It then became evident that the schools must serve a two-fold purpose; one, the custodial care of certain classes of children who would require care for an indefinite period of years; and secondly, the teaching and training of children possessing sufficient intelligence to derive profit from this instruction. The great contribution of our schools has rested with the group last mentioned. Here the full force of resources at the command of the respective superintendents has been called into play and remarkable results have been attained. The importance of custodial care for the first class of children must not be minimized. We will always have large numbers of children in our schools who will never be able to return to the community. The care and training of these children is of importance and must not be overlooked in our interest in the more promising cases.

In dealing with cases of higher mental grade, education has been the keynote and in a much broader sense than ordinarily applied. The public school sees a pupil four or five hours a day and is concerned chiefly in the intelligence of the child. The State school has a much broader field in that it houses, clothes, and feeds the children entrusted to its care. In addition it is responsible for their education and entire physical and spiritual development as well. It is in the field of education in all its ramifications that the school has reached its highest point, not only in class-room work and industrial training, but in the even more important task of habit formation and character and personality development. After all, personality, habits, character and capacity for working steadily decide our success or failure in life. Knowing that

these factors are even more important than intelligence, the schools have taken great care that the child be given the advantage of a training that covers twenty-four hours a day, beginning when the windows are closed and the heat turned on one-half hour before the children are awakened in the morning and continued until the building family has been tucked in at night.

Regular habits are established early. In considering this it is amazing to observe the number of children coming from the community who show little evidence of training even in the simplest things. Children coming to the school are immediately placed on a regular schedule of activities. They get up at a designated hour, make their toilet and are neatly dressed before repairing to the dining-room for breakfast. The guiding hand then leads them through the various school classes, including gymnasium, music, and special classes, such as domestic science. They may attend the various industrial classes where the girls learn needlework in all forms, machine sewing, hand and machine weaving, basketry, rug-making, or machine-knitting of stockings and sweaters. For the boys the guiding hand points out broom and brush-making, toy design and construction, painting, hand and machine shoe repairing, or furniture repair and construction. The older boys are placed in the bakery, the grocery store-room, the clothing store-room, the carpenter shop, the power house, the electrical department, the plumbing division, or in the garage. Other groups are instructed in the horse stables, the dairy, or in the many and varied activities of a large farm. For the older girls there is instruction in hospital training with small children, or cooking in the large kitchen providing food for between 1000 and 2000 persons daily. Others are taken to the laundry where fancy and hand ironing or pressing are taught or instruction is given in the management of power washers, extractors, tumbler dryers or machine ironing. During the evenings there are pleasant hours in the library, playing games, dancing in their respective buildings, attending the weekly movies or dances, taking part in or attending occasional plays. On Sundays there are elaborate church services for the respective religions.

The guiding hand has outlined this training for the children having in mind that they will soon be growing up and possibly will be able to return to the community. We have learned from experience that the feeble-minded must acquire knowledge at an early date and have this knowledge often repeated to be of use. Those occupations which are to be of use to the child in later years are presented to the individual a little at a time so that his knowledge may accumulate as he grows older. This opportunity is extended to every child. It is most important that every child, whatever his mental capacity, be given all the education which he is capable of retaining. A trained child of low mental rating can do something. The same child untrained is a total loss and, what is of more importance, he is thoroughly unhappy in his inactivity.

It has been said before that it is during the period of life up to 16 or 18 years that the most important determinations are made as to the future life of the child and his attitude toward society. This is as true, of course, of the normal child as it is of the feeble-minded. "The way the twig is bent" will decide whether the child is to return to the community as an asset or become a permanent resident of the institution. It is the steady holding before him of the right kind of ideals and the development of a standard of conduct that greatly enhance the possibility of a social adjustment. An erroneous impression has prevailed that the feeble-minded are inherently bad. This hypothesis is as true as the statement that all the blind, deaf, or crippled are inherently bad. If those handicapped are bad it means that they have been subjected to an environment which they could not survive. Placed in favorable surroundings with an all-round training of character as well as intelligence they develop few asocial tendencies. There are always exceptions, but in the average child this is true. Herein the State schools rise to greater heights than simply that of custodial care. They are actual builders of character, moulders of the destinies of the feeble-minded entrusted to their care, and the results of their labors are now being strikingly demonstrated.

Children of the State schools who have received all that the institution has to offer in the line of education and training are now ready to return to the community. Active social service departments in all the State schools are constantly in touch with the industrial situation and are on the lookout for suitable positions and homes in which to place the trained boy or girl. It is necessary that these positions or homes be chosen with great care. Not only the individual capacity of the boy or girl must be considered but the environment in which the graduate is to be placed. Dr. Wallace has often said that we need not concern ourselves with what the feeble-minded will do to the community, but rather with what the community will do to the feeble-minded. When the graduate has been placed in a suitable situation the social service visitor preserves the liaison between school and individual. These workers exercise supervision during the adjustment period. The boy or girl has an opportunity to take his or her place in society and become a self-respecting and self-supporting citizen.

To Dr. George L. Wallace, Superintendent of the Wrentham State School, belongs the credit for creating the present parole system for the return of boys and girls to the community. In 1914 he recommended that a parole system be put into operation and his subsequent reports

served as a basis for similar systems all over the country. As a result of his foresight in establishing this system, even though under opposition, the State of Massachusetts up to the first of 1927 had placed nearly 800 graduates in the community under the parole law. The annual saving to the State in being relieved of the maintenance of this group of 800 amounts to approximately $290,000. However, the saving of an amount of this size is not overwhelming in comparison with the great good accomplished by the reclaiming of these boys and girls for society.

It has been very encouraging to see the study of these children emerge from the one-time pessimistic thought that nothing could be done for the feeble-minded. We are now in a period of optimistic enthusiasm for training and returning of these children to responsible positions in society. In our present deevlopment of school clinics for the mental examination of children we are recognizing mental defect at an early age and giving parents intelligent advice as to the proper way of meeting the problem. This factor in combination with the principle of comprehensive training in our State schools means that in the future we may hope to see fewer and fewer of the feeble-minded becoming losses to society. We can know that with our present enthusiasm and activity we are going to see more and more of these boys and girls return to the community and take their deserved places in the ranks of self-respecting and self-supporting citizens.

REFLEX ANURIA

(Report of a Case Caused by a Stricture of the Urethra)

BY SAMUEL G. PAVLO, M.D.

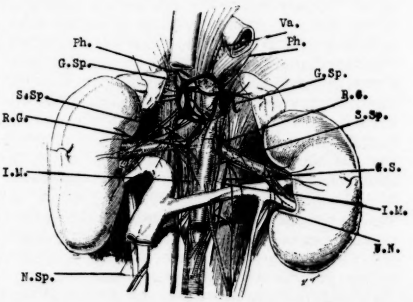
In order to understand how a reflex anuria may be caused it is desirable to have in mind the anatomy of the kidney and especially its nerve supply. The kidney can be conceived as a conglomeration of glomerulo-tubular units, numbering in each kidney about 4½ million (Traut). The "modern theory" of urinary secretion (Cushny) is at present somewhat modified in that the glomerulus is looked upon not only as a filter, but also as having absorptive qualities, and that the tubular cells both add certain constituents, such as urea phosphate, to the glomerular product and take up certain others, such as water, sugar, and chlorides.

The blood supply is from the renal arteries, which at first divide into four or five branches (Gray) and then, radiating through the medulla to the cortex, give off a series of small branches (afferent vessels), which, in their turn, break up into small capillary nodules, capillary tufts, helping to form the glomeruli. These capillaries collect into efferent vessels, which break up again into many capillaries on the walls of the tubules. From the latter capillaries the renal veins are formed.

The nerves of the kidney, about fifteen in number, are derived from the renal plexus and are arranged in a net work along the renal vessels. They follow the arterioles, the afferent and efferent vessels and capillaries; they are also distributed to the cells of the tubules and to the capsule (Renner).

Both renal plexuses are derived from the celiac plexus and the celiac ganglion, which, in their turn, are connected with the splanchnic nerves (lesser and lowest) and with the vagus, which sends a branch to the kidney. The kidney is thus innervated from the vagus and from the splanchnics through the celiac ganglion (Quinby). Through the latter, the renal nerves are connected with the inferior mesenteric nerves, irritation of which in renal conditions gives gastro-intestinal symptoms. They are also connected with the spermatic, the ureteric, and the sympathetic nerves of the urethra (Flandrin).

Renal and Celiac Plexus



Ph. = Phrenic
G.Sp. = Great Splanchic
Va. = Vagus
S.Sp. = Small Splanchic
N.Sp. = Spermatic Nerve
R.G. = Renal Ganglion
I.M. = Inf. Mesenteric
G.S. = Great Sympath.
U.M. = Ureteric Nerve

Experiments at various times have shown that the functions of the renal nerves are not important for urinary secretion. Indeed there is even a temporary increase in secretion on severing the renal nerves. Milliken and Kar have noticed that a denervated kidney of a dog gave increased function for several months. It

is also worthy of note that section of the splanchnic nerves experimentally was followed by increased urinary secretion on the same side (Claude Bernard). The same increase, although a temporary one, was shown by Quinby, who replaced an excised kidney of a dog, thus depriving the kidney of its nerves. Finally, Scott and Loucks, by experimenting on dogs, found that section of the splanchnic has an effect on the urinary secretion similar to section of the renal nerves themselves. These experiments prove conclusively that the renal nerves are not essential for urinary function, and that the absence of the nerves permits an increased urinary secretion.

A study of the functions of the renal nerves is interesting and important in this connection. Engelman, Dogied, and others have found numerous nerve ganglia in the kidney, ureter, bladder, and urethra (Quinby, Hryntschak). The nerve communication, together with the ganglia, easily explains reflex nerve phenomena all through the urinary tract, as well as the so-called "reno-renal reflex"—a reflex action from one kidney to the other. Ellinger and Hirt's theory, that there exist in the kidney regulator nerves, one for regulation of the rate of urinary flow and the other for regulation of the composition and chemical modification of the urine, is not as yet generally accepted. Richard and Schmit went further in proving that the function of the splanchnics is that of vasoconstriction. By direct observation of the glomerular circulation in a frog's kidney, they noticed an irregular intermittance of blood flow through a group of adjacent glomeruli. By stimulation of an afferent nerve, or an electrical stimulation of sympathetic fibres to the kidney, a similar condition was brought about through a constrictor stimulus to the arterioles, which resulted in closure of the vessel. Thus the function of the renal nerves, and of the splanchnics equally, seemed to be vasomotor (Marshall), and stimulation of them brings about a vasoconstriction of the renal vessels, which results in anuria.

In other words, *reflex anuria is caused by stimulation of the splanchnic nerves.* According to Legueu the renal nerves are very sensitive to excitation, and anuria following burns, abdominal trauma, renal colic, following operations on the kidney or bladder, is explained by stimulation of the splanchnics. Reflex anuria is known to follow acute peritonitis. Seifert reports a case of anuria following an injury to the spleen and left kidney.

That the reflex anurias are entirely due to some excitation of the splanchnics has already been demonstrated experimentally. Rovsing's three cases of anuria are very interesting as a demonstration of a reflex anuria or reno-renal reflex. He has left a clamp on the renal pedicle after a nephrectomy and thus produced anuria of three to four days' duration (through pressure of the renal nerves by the clamp). Removal of the clamp resulted in a cessation of the anuria. Götzl produced anuria by clamping one of the ureters. The anuria ceased as soon as the clamp was removed. Anuria following an accidental tying of one of the ureters in pelvic operations is a known fact, and Wyman reports such a case of a four days' anuria. To this class belongs the so-called "calculous reflex" anuria. In a questionnaire sent out by Caulk to members of American Urological Association it was found that of 61 calculous obstructions, unilateral stones caused four reflex anurias, or a little over 6.5%. The possibility of an anuria is worth while remembering in dealing with a case of renal or ureteral calculous. Eliot reported a case of reflex anuria due to a blood clot in the ureter. Mellen reported a case of five days' anuria caused by ureteral catheterization. Anuria is also known to follow pyelography. Ransohoff reported, in 1895, a case of anuria following the blocking of one kidney. Janet reported a case of ten days' anuria following an instillation of silver nitrate solution into the bladder. Morton cites external urethrotomy as a possible cause of anuria, and Legueu saw a case of four days' anuria following an internal urethrotomy.

Other nervous excitations may cause reflex anuria: hysteria, inducing excitation of the splanchnics, may be responsible, and Guisy reports such a case in a female following a "violent moral emotion." Moreover, the experiments of Renner, Wertheimer, and Delezenne on animals in whom anuria was produced by cooling their skin are well known.

The question of whether or not the condition of the kidney predisposes to reflex anuria is still in dispute. Watson, Cabot, Guyon, Israel, and others are of the opinion that reflex anuria is possible in a perfectly healthy kidney, while Albarran, Legueu, Morris, Rovsing, and Randall do not believe that a healthy kidney will cease to function because of reflex influences; in fact Randall, in his very instructive paper on prerenal anuria, expresses his opinion quite forcibly. He says, "As regards the occurrence of a true reflex anuria, by which I mean complete cessation of function in a healthy kidney following some catastrophe to its mate, we yet await the demonstration of a proven case." Aschner reports such a case of anuria of 48 hours' duration "in which we were never able to demonstrate a pathological lesion of any kind by any test." Nicolich's case of four days' anuria following a nephrectomy is most convincing of a possible reflex anuria in a healthy kidney. During decapsulation for relief of the anuria, a thorough examination of the kidney was made, together with a biopsy. This, together with the consequent functional tests and

subsequent observation of the case, revealed no pathology in the kidney.

The case that I am reporting here is a man, a police officer, 49 years old, well built and preserved, who was admitted to the hospital with a history of anuria of two days' duration. The only illness he has ever had was acute gonorrheal urethritis, 30 years ago, which was complicated with epididymitis and prostatitis, for which he was treated for six months. He was treated for a stricture of the urethra by sound dilatation at five different intervals, the last one taking place five years ago.

The patient is married, has one child 12 years old, and his wife, as well as his daughter is well. His wife has never had any miscarriages, nor abortions. He had noticed for the past few weeks that his urinary stream became much smaller, and that it took him a longer time to empty his bladder. This was not accompanied by pain or discomfort anywhere, and he paid little attention to it as he knew that his condition was due to a narrowing of his old stricture, which required, as formerly, a dilatation by sounds. He applied for treatment more on account of his stricture than because of the anuria, since the latter gave him no discomfort whatsoever. His general physical examination was absolutely negative. Here was a man, an excellent specimen of health, absolutely conscious and rational, giving an excellent account of his urinary troubles, possessed of good color and good general condition, but in a state of total anuria of 48 hours' duration. There was no costo-vertebral tenderness, nor spasm; no dullness over the bladder, nor any indication of a distended bladder. Rectal examination revealed a normal prostate. A filiform revealed a tight stricture at the membranous urethra, the filiform, however, passing through this stricture into the bladder. The filiform was left in the urethra and general medical treatment was ordered for the next 24 hours.

Having obtained no results, the anuria still persisting, ureteral catheterization was resorted to. The stricture was easily dilated by sounds to 24 F and a double catheterizing cystoscope with two No. 6 ureteral catheters was passed. No urine was obtained from the bladder, the latter being clear, requiring only one washing before cystoscopy was begun. The bladder capacity was about 130 cc., the mucous membrane was normal; no foreign bodies nor tumors were seen. There were only a few trabeculations; both ureteral orifices were clear; no usual contraction and dilatation of them could be observed. Both ureteral catheters passed very easily to the pelvis of the kidneys without any obstruction. However, there was no flow of urine from the catheters. Washing the pelvis with sterile water brought a return of the same amount of clear fluid. Both ureteral catheters and one urethral catheter were left for 18 hours, and medical treatment was continued. The anuria still persisting, surgical interference was decided upon at the end of four days anuria. The operation consisted of decapsulation of one kidney under regional anesthesia, 120 cc. of 1% of novocain solution being used.

The right kidney was exposed without difficulty, and it was found normal in size, shape, and consistency. The pelvis was not distended; the ureter was normal; there were no calculi nor was any pathology felt or seen anywhere in the operating field. The capsule was stripped off very easily and the kidney placed back; the wound was sutured without drainage. The patient stood the operation well, being conscious and rational all the time and not complaining of any pain. He was sent to the ward in no worse condition than before the operation.

About one-half hour after the operation, while we still remained in the operating room, the orderly brought in a urinal containing about 50 cc. of urine just passed by the patient. It is impossible to say whether the urine came from one or both kidneys, as the ends of both ureteral catheters as well as the urethral catheter were inserted in one receptacle. The examination of this urine showed pus, blood, and bacteria, one pigmented and one hyaline cast, no sugar. He passed the same day 650 cc. of urine, the next day 1100 cc., then 1800 cc., 2000 cc., etc. All the following urines were normal.

The general picture of an anuric patient is rather surprising to one who is not acquainted with this condition. The patient acts perfectly well for the first four or five days of his anuria, and there are certainly no symptoms, nor any indication of the gravity of the case and of the coming uremia. Watson, in his collected 62 cases of anuria, found the period of toleration without uremic symptoms to be from 5 to 6 days. In 14 cases the toleration period lasted from 10 to 16 days. Praetorius reports 2 cases of 7 and 10 days of total anuria without symptoms, and Henzel reports a case of 7 days' anuria without uremic symptoms.

A case of 8 days' anuria came under my observation at the Hopital Necker in Paris. This was a man about 30, who had a kidney removed under a mistaken diagnosis without a thorough study of what the function of the other kidney was, or even whether there was a kidney on his other side. The nephrectomy was followed by anuria, and ureteral catheterization was unsuccessful. A lombotomy revealed a small little bud, about 2 by 1½ cm. instead of the kidney, with a little cord, suggesting a ureter. A sad lesson for an unthinking surgeon! This patient had no uremic symptoms for 7 days.

Of course, in all anuria patients the blood pressure rises, and so does the blood urea and the non-protein nitrogen.

The treatment should be expectant (medical and surgical), and the former should not last more than 3 or 4 days as the mortality rises with the duration of the anuria. Morris gives the mortality in 48 anuria patients after expectant treatment as 79%. Legueu reported 25 cases with 10 deaths or 40%, while in 9 cases operated upon before the 5th day, there were 7 cures and 2 deaths—a mortality of 22%. Huck gives the following figures of increased mortality with increased duration of the anuria:

Patients operated upon before the 4th day—mortality 25%
Patients operated upon before the 5th day—mortality 30.75%
Patients operated upon before the 6th day—mortality 42%

The expectant treatment consists, in brief, of hot packs, saline solution or water by mouth, subpectorally, or intravenously, or still better given through a duodenal tube. Ginsberg produced diuresis by water given by mouth, intravenously or subpectorally, and found that the former produces more diuresis. Daily injections of hypertonic solution of glucose—500 cc. in 30 to 50% given intravenously, rectally,

or subpectorally produces diuresis, and Chabanie reports a number of cases which were benefited by it. Sudden emptying of a filled bladder may cause the kidneys to secrete urine and cease an anuria.

Ureteral catheterization, proposed by Albarran, leaving the catheter for 24 hours or longer, is the generally accepted treatment at present, and numerous cases are reported in the literature where an anuria was cured by ureteral catheterization. Thus Praetorius reports a case of 7 days' anuria which was cured by ureteral catheterization. This treatment is especially successful where the anuria is due to a blocking of one of the ureters by a stone, stricture, clot, etc. By establishing drainage the back pressure is relieved, and with it the vasoconstriction, thus stopping the stimulating effect on the splanchnic.

Ureteral catheterization having failed, drainage of the urine, especially in the reflex anurias due to obstruction, may be established by a nephrostomy or pyelostomy. Removal of the cause (calculus, accidental ligation of ureter, etc.) should be left for future treatment. In this respect L'Esperance's case is very instructive. A nephrostomy relieved an anuria due to an accidental ligation of the ureter during a pelvic operation. The surgeon, instead of waiting until the patient was well enough to stand an abdominal operation for repair of the ureter, decided to do it at the end of three weeks with a resulting mortality. In the cases where a reflex anuria is not due to obstruction, decapsulation seems to be the accepted and successful treatment. Thus Nicolich's case, as well as the case I am reporting, was relieved by decapsulation.

Decapsulation was first performed by Harrison in 1896, then described by Edebohls in 1901, and since then it has become the popular treatment for anuria. Since Harrison and his followers believe that the benefit of decapsulation is due to the relief of intrarenal pressure and the improvement of renal circulation, decapsulation was and is performed in many cases of urinary suppression, partial or complete, even in those cases where the anurias are not due to nerve influence. The results are naturally not uniformly accepted. Thus Quinby, who decapsulated 3 cases (hemorrhagic nephritis, acute tubular nephritis, and bichloride poisoning), came to the conclusion that these patients have not been benefited even temporarily. Blum, on the other hand, reports more than 40 cases with good results. He cites, for instance, a case of a boy two and one half years old with a bad nephrosis, angina, oliguria of 100 cc. to 300 cc. of urine, hydrothorax, and albuminuria of 7.5%. After decapsulation the albumin fell to 1%, the oedema disappeared, and there was a general improvement in the condition of the patient. He adds that "as a matter of fact the treatment of renal insufficiency by means of decapsulation is successful. Edebohls, and with him many other surgeons and experimentors, puts this kind of treatment on a solid basis in nephritis, uremia, eclampsia, oedema, and finally in renal glaucoma (hematuric nephralgia)." Blum finds decapsulation successful in (1) essential hematuria, (2) nephritic hematuria, (3) high albuminaria and oedema (nephrose) when internal therapy is unsuccessful, (4) renal glaucoma (hematuric nephralgia), and (5) nephritis in a movable kidney (the treatment consisting in decapsulation and nephropexy).

As to the beneficial results of decapsulation in reflex anuria there are no disputes, although it is inconceivable how the stripping of the renal capsule can relieve intrarenal pressure and improve renal circulation, especially when in these cases the nonfunctioning kidney is not enlarged and the capsule certainly does not exert any pressure. It is more logical to expect that decapsulation breaks the reflex nerve tension of the splanchnic fibres distributed to the capsule and thus relieves the state of stimulation of the splanchnic, which, in its turn, ceases the vasoconstrictor influences on the renal circulation. Thus while decapsulation improves the renal circulation, it may do it through the splanchnic primarily.

This view is somewhat, although not wholly, supported by Seifert, who states that there is "no doubt that decapsulation not only relieves congestion, but innervates the kidney" and also by Hoffman who says that "it is not to be denied that through this operation (decapsulation) a vasomotor reaction is brought about."

This being the case, one may look for other than operative means to attack the splanchnic in anurias or partial suppressions. Newrit has made use of attacking the splanchnic by anesthetising it in a case of partial suppression, and was successful in increasing the urine from 300 cc. in 24 hours to 2000 cc. in 12 hours in a patient under his care.

This experiment of Newrit may be an epoch-making case in the history of anurias or partial suppressions since anesthesia of the splanchnic is a minor procedure, (Labat) and, if successful, will save many human lives. It certainly should be given a thorough trial.

REFERENCES

Traut: From Marshall's Secr. of Urine, Phys. Rev., 6, 1926.
Cushny: Secretion of Urine.
Gray: Gray's Anatomy.
Renner: Cushny, Secretion of Urine.
Quinby: Cabot's Modern Urology.
Flandrin: Arch. Urol. de la Clin. de Necker, IV, 2.
Flandrin et Petit: Bull. de la Soc. Anat., Oct., 1923.
Engelman, Dagiel: From Hryntshak Zur Anat., etc.
Hryntshak: Zur. Anat. und Phys. des Nerveapp; Zeitschr. fur Ur. Chir., 18, 1925.
Ellinger and Hirt: Arch. fur Exp. Path. und Ph., 1925, CVI.
Scott and Loucks: Inhib. of Renal Secr. Proc. Soc. Exp. Biol. and Med., 23 May, 1926.
Claude Bernard: From Vivian, The Pathology of Anuria. Southwest Medicine, Vol. IX, No. 8.
Quinby: Amer. Jour. of Phys., 1917, XVII.

Milliken and Karr: The Infl. of the Nerves on Kidneys. J. Ur., Jan., 1925.
Richards: Further Observ. on the Glom. Circ. J. of Ur., Mar., 1925.
Richard and Schmidt: From Richards' Further Observ. on the Glom. Circ. J. of Ur., Mar., 1925.
Marshall: The Secretion of Urine. Phys. Rev., 6, 1926.
Seifert: Zur Frage der Refl. An. Zeitr. fur Urol., XIX.
Rovsing: From Vicolich Anurie Refe Apres Neph. J. of Ur., IXX.
Gotzl: From Caulk's Post Rev. An. J. of Ur., Mar., 1925.
Wyman: Discussion. The J. of Urol., Mar., 1925.
Caulk: Post Renal Anuria. The J. of Urol., Mar., 1925.
Legueu: Traite Chirurgical d'Urologie.
Janet: From Legueu's Traite Chir. d'Urol.
Guisy: From Randall, Pre-renal Anuria. J. of Urol., Mar., 1925.
Renner, Wertheimer and Delezene: From Cushny's The Secr. of Urine.
Watson, Cabot, Guyon, Israel: Cabot's Modern Urology.
Albarran, Legueu, Morris, Rovsing, Randall: Randall's Pre-renal Anuria. J. of Urol., Mar., 1925.
Aschner: Discussion. J. of Urol., Mar., 1925.
Nicolich: Anurié Refl. aprés Nepha. Jour. d'Urol., T XX.
Watson: From Cabot's Article in Cabot's Modern Urology.
Praetorius: Anuria. Deutsche Med. Wchnschr., 51, Sept. 11, 1925.
Henzel: Anuria. Deutsche Med. Wchnschr., No. 25, 1925.
Morris: Quoted by Caulk in Post Ren. Anur. J. of Urol., Mar., 1925.
Huck: Quoted by Legueu in Tr. Chir. d'Urol.
Ginsberg: From Marshall's The Secr. of Urine. Phys. Rev., 6, 1926.
Chabanie: Bull. de la Soc. franc. d'Urologie No. 1, 1921.
Chabanie: Bull. de la Soc. franc. d'Urologie, 1923.
Albarran: From Nicolich. Jour. d'Urol., T. XX.
L'Esperance: Discussion. Jour. of Urol., Mar., 1925.
Harrison: From Bancroft. Annals of Surgery, Vol. LXXXI, No. 4.
Edebohls: From Blum. Die Chir. Behandl der Nier. Ins. Ztschr. fur Ur., XVIII.
Quinby: Decap. Jour. of Urol., Mar., 1925.
Blum: Die Chir. Behandl der Nier. Ins. Ztschr. fur Urol., XVIII.
Hoffman: Theorie und pr. fur Decaps. Beitr. Zur. Klin. Ch., 131, 1924.
Newrit: Zeitschr. Ur. Chir., 1922. XI (75).
Eliot: From Rubritius. Wien Klin. Wchnschr., July 2, 1925.
Labat: Regional Anesthesia.

MEDICAL PROGRESS

CARDIO-VASCULAR REVIEW FOR 1926

BY SEELEY G. MUDD, M.D.* AND HOWARD B. SPRAGUE, M.D.

(Continued from page 995, issue of November 24)

SIGNS, MURMURS, AND METHODS

Barss, Eade, and Fitzgerald (*Boston M. & S. J.* 1926, 195:116) refer to several types of standard stethoscopes, including the binaural and monaural type, as well as some experimental models. These authors consider that the type of stethoscope which gives the greatest intensity is one in which there is a small air volume, and which covers a relatively large area.

Kendrew (*Heart.* 1926, 13:101) describes a graphic method for recording the venous pulse in man, which is a modification of the method for measuring venous pressure described by Moritz and von Tabora. Records illustrating the method are shown.

Morris (*J. A. M. A.* 1926, 87:463) refers to the fact that alternation of the pulse is not uncommon. He observed 19 cases of constant alternation of the pulse in 8 months. Of these 7, or 36.8%, showed alternation in the intensity of pitch of the heart murmurs or sounds. In addition, Morris noticed the variations in the intensity of the sounds over the brachial artery, which were very striking in all patients with alternation, shown either by blood pressure variation of alternant beats or by tracings of the radial pulse. This phenomenon was carefully checked in other patients, and it was observed in several persons who later developed typical pulsus alternans. The author suggests that the variations in the intensity of the sounds over the brachial artery in the few cases observed, is a valuable early clinical sign of pulsus alternans, and will aid in prognosis. Alteration in intensity of the sound over the brachial artery while taking the blood pressure has not been noticed in patients with normal hearts.

Sprague (*J. A. M. A.* 1926, 86:1909) described a type of stethoscope chest piece which combines the bell and Bowles types. The bell is most useful for low pitched murmurs, while the Bowles or diaphragm type registers the high pitched murmurs more clearly.

Wilson and Wishart (*Ann. Clin. Med.* 1926, 2:78) urge a more careful study of the auscultatory signs of cardiac disease. A careful history, thorough inspection, palpation and percussion, as well as roentgenographic, electrocardiographic and other laboratory studies are also essential.

White (*Boston Med. & Surg. J.* 1926, 195:1147) writes on the importance of the recognition of the differences between the diastolic murmurs of mitral stenosis and of aortic regurgitation. Criteria for the differentiation of these murmurs are recorded. The murmur characteristic of aortic regurgitation is heard early in diastole, immediately after the second sound; it is blowing in character and often high pitched; the murmur is maximal in intensity, along the left border of the sternum, although it is heard frequently at the apex, and rarely maximal at the aortic area; it is heard best with the patient in the upright position leaning forward, and with the diaphragm stethoscope chest piece (Bowles type). On the other hand, the murmur of mitral stenosis begins an appreciable interval after the second sound, and often immediately following the third sound if one is present; the murmur extends through mid-diastole and if the stenosis is marked and the rhythm normal, it is followed by a presystolic accentuation and thrill, especially when the pulse rate is increased after exercise; the murmur is usually low pitched and rumbling in character; it is maximal at the apex and often limited to a very small area; the murmur is best heard with the patient in the recumbent position and if the bell type of stethoscope chest piece is used.

*Dalton Scholar and Research Fellow, Massachusetts General Hospital, 1926-1927

X-RAY

Chamberlain and Dock (*Radiology*. 1926, 7:185) describe a method for analyzing the action of the heart from films obtained with the roentgen cinematograph of Ruggles. The following factors are pointed out: "The normal left auricle empties early in diastole and shows only very slight motion at auricular systole. At the beginning of diastole, the cephalic half of the normal left ventricular border may move mesad for as much as two-fifteenths second after the apex has begun its diastolic excursion. The caudal 5 cm. of the normal right border moves in phase with the left ventricle. Only about 2 cm. of the cephalic part of the right border moves in phase with the auricle."

Hodges and Eyster (*Arch. Int. Med.* 1926, 37:707) present new tables for the estimation of the normal transverse cardiac diameter in man, based on orthodiagraphic data, which introduces a means of prediction that is 13% efficient. The original data employed consists of detailed observations on 80 persons, carefully analyzed by the method known as the correlation of a criterion, (transverse diameter of the normal heart with two variables, height and weight). Tables are included based on a prediction formula developed by the Thurstone-Hall method, which is as follows: Transverse diameter in millimeters equals age 0.1094, minus stature 0.1941, plus weight 0.8179, plus the constant 95.8625. They state that: "If the heart is found to be five millimeters wider in its greatest transverse diameter than the diameter as predicted by this formula, the chances are three to one that the widening is pathologic."

Manara (*Riforma Med.* 1926, 42:821) compared the transverse diameter of the thorax with that of the heart orthodiagraphically. With healthy hearts and an average body height the ratio is approximately 2; in patients with a short wide thorax, it may be as low as 1.5; in tall slender subjects it may be as high as 2.5.

CARDIOGRAPHY AND ABNORMALITIES OF THE HEART BEAT

Allan (*Glasgow M. J.* 1926, 23:440) has recorded a case of paroxysmal tachycardia arising in the right ventricle. The ventricular rate was unusually rapid, being from 230 to 270. During the paroxysms the patient presented the Adams-Stokes syndrome. Retrograde stimulation of the auricle was present with 2 to 1 retrograde heart block. Quinidine sulphate was beneficial in controlling the paroxysms.

Bain and Hamilton (*Lancet*. 1926, 1:807) obtained electrocardiographic records in 50 cases of rheumatic carditis. Their results can be summarized as follows: "Lengthening of the auriculo-ventricular conduction time was present in two cases, impaired intraventricular conduction was present in one, abnormality in the T wave in Leads II and III occurred in five cases, extra auricular systoles occurred in one." Preponderance of one ventricle over the other was unusual. A right-sided preponderance indicated a rather poor prognosis.

Barker (*Am. Heart J.* 1926, 1:349) reported a case in which the auricles responded to stimulation by the ventricles during complete A-V heart block, due to retrograde conduction of the impulse to the auricles.

Barnes (*Am. J. M. Sc.* 1926, 171:489) reports cerebral manifestations in 15 patients out of a series of 104 cases of paroxysmal tachycardia. Electrocardiograms were obtained during the paroxysms in 13 cases. The origin of the impulse was nodal in 7 cases, auricular in 1, ventricular in 3, and in 2 cases the abnormal rhythm proved to be auricular flutter. Of the cerebral manifestations, vertigo was the most common, occurring in 8 cases. Next in order of importance were: temporary blindness, 6 cases; falling to the floor during attacks, but not becoming unconscious, 5 cases; syncopal attacks, 4 cases; and epileptic seizures, 2 cases. Unless serious organic heart disease is present the prognosis is good.

Bass (*J. A. M. A.* 1926, 86:387) gives detailed reports in seven cases of cardiac extrasystoles occurring in childhood, the youngest being 10 months of age, and the oldest 8 years. Reference is made to three varieties of extra-systoles which occur in childhood—emotional, toxic, and idiopathic. Of these, the last two are the most important. The toxic type is usually transitory, and occurs in the course of, or as the result of acute infection. Although this type may be coincident with acute cardiac inflammation, it is not necessarily evidence of marked permanent cardiac injury. Generally the irregularity completely disappears, and does not leave the child predisposed to periods of recurrence. The idiopathic variety is seen in the healthy child without apparent cause. The condition is more or less permanent, but does not seem to result in cardiac weakness.

Danielopolu and Proca (*Arch. d. mal. d. Coeur.* 1926, 19:217) report two cases of auriculoventricular bradycardia. They explain the mechanism of the transient transformation of auriculoventricular bradycardia into flutter. They describe the action on the heart rhythm of the vagus test, compression of the eyeball, digitalis, epinephrine, efforts, forced respiration and swallowing.

Graber (*Am. Heart J.* 1926, 1:564) refers to a case of Hodgkin's disease in which paroxysmal tachycardia was observed. The onset of this arrhythmia suggested that it might be the result of pressure of the enlarged mediastinal glands on the extrinsic nerves of the heart. At necropsy the vagus nerves were found extensively injured by pressure.

Hepburn and Jamieson (*Am. Heart J.* 1926, 1:623) report on the prognostic significance of

several common electrocardiographic abnormalities in 227 cases. They conclude that: "Negative T waves in various combinations in Leads I, II, and III, other than Lead III alone, warrant a grave prognosis. Signs of bundle branch block would appear to be the most serious electrocardiographic abnormality. The presence of ventricular extrasystoles does not appear to increase the mortality in auricular fibrillation. Low voltage, unaccompanied by other electrocardiographic abnormalities is a prognostic sign of serious import."

Herrmann and Ashman (*Am. Heart J.* 1926, 1:269) present two cases of heart block. The results of barium chloride therapy as well as the effect of other drugs are discussed in detail. An explanation of the mechanism of heart block is suggested.

Jones and White (*Am. Heart J.* 1926, 2:139) report an unusual case of paroxysmal ventricular tachycardia occurring in a male student 18 years of age. There was no definite rheumatic history, and his only symptom was a consciousness of frequent spells of very rapid heart action. The heart was slightly enlarged, but there was no pathognomonic murmur of valvular disease. The blood pressure was 140 m.m. of mercury systolic and 80 m.m. diastolic. Frequent electrocardiographic studies are incorporated. "Records are shown in which ectopic ventricular beats interrupt the normal rhythm, and are similar in form to the complexes during the paroxysms. . . . . The auricular waves are clearly outlined during the paroxysms, in Lead II especially, apparently arising from the sinoauricular node and at varying rates. The paroxysms are short and similar to runs of ectopic ventricular beats rather than to prolonged tachycardia. Quinidine sulphate, when given in sufficiently large doses (1.2 gm. daily), reduced the ventricular rate from 130 to 100 or less, restoring normal rhythm, while without the drug the rate was frequently 160 to 180. Daily doses of quinidine of 0.6 gm., while at times effective, did not maintain normal rhythm. There was no change in the patient's general condition while taking the drug except that he felt certain that his heart was beating much more slowly than usual."

Levy (*Arch. Int. Med.* 1926, 38:116) reported four cases of auricular fibrillation in which the ventricular rhythm showed periods of regularity lasting from a few hours to several days. The rate of the ventricles was over 60 per minute in each instance. This condition is of clinical importance, since normal (sinus) rhythm may be simulated. MacKenzie was the first to describe this condition. In the literature there are examples of 15 other cases in which the ventricular rate was over 55. Two possible explanations are suggested.

Major and Wahl (*J. A. M. A.* 1926, 86:1125) report a case of paroxysmal tachycardia associated with focal myocarditis, in a man 25 years old. The type of electrocardiogram shown is that which is usually associated with ventricular paroxysmal tachycardia, but the authors mention that the same type of record is occasionally seen in certain tachycardias of auricular origin. The pulse rate varied from 200 to 240 per minute. Two of these attacks were relieved by 2/3 of a grain (0.04Gm.) of pantopon by mouth and 0.25 Mg. of ouabain hyperdermically. The patient died five hours after this last attack, and the physician who was present at the time of exodus stated that there was marked quivering over the precordia. Several months before death the patient was advised to have several infected teeth removed. The cultures from these teeth showed an anhemolytic streptococcus.) The heart weighed 335 Gm. and was very flabby. The anatomic diagnosis included: acute and chronic myocarditis of the focal type, parenchymatous degeneration of the myocardium, chronic pericarditis, and early focal arteritis of the coronary artery. Reference was made to the possibility of the tachycardia being due to myocarditis, which was the result of the streptococcic focal infection. In addition, the findings suggest the question of the relationship between focal infection and arterial lesions.

McCrudden (*J. A. M. A.* 1926, 86:535) reports on sinus respiratory arrhythmia in children with rheumatic fever and affirms that this form of arrhythmia is absent only in the most serious cases of heart disease. This statement is based on the analysis of 100 unselected cases, all of whom showed rheumatic heart disease with valvular injury. Of this group, 80 cases showed sinus respiratory arrhythmia readily recognized on auscultation. In the 20 cases not showing sinus arrhythmia, 50% showed the following conditions: cardiac enlargement, active infection, pulse rate over 100, decompensation, and more than simple mitral change. In the 80 cases showing arrhythmia, only 1.25% showed all five of these characteristics. The report is concluded by the following statement: "While the absence of sinus respiratory arrhythmia in children does not distinguish patients having heart disease from those not having it, it is evident that it indicates a bad prognosis."

Rothschild, Mann and Oppenheimer (*Proc. Soc. Exper. Biol. & Med.* 1926, 23:253) studied four cases of coronary artery occlusion with a portable electrocardiograph. They divide the electrocardiographic changes into two stages. The first stage, which was seen as early as six and one half hours after the onset of acute symptoms, consisted of a well defined abnormality, in that the R-T transition was abnormally elevated above the base line. The second stage appeared as early as 32 hours after the onset

of clinical symptoms, but was not fully developed until approximately two weeks or more had elapsed. The second stage consisted of a change in the T wave, which is more definitely separated from the R, since the R-T transmission approaches the base line. The T wave may be inverted, and may assume a characteristic form, in which the first limb is curved and the second limb rather straight. This they designate as a "coveplane." These different successive changes were noted in all four of the cases reported, and according to the authors' suggestion, cannot be regarded as accidental.

Sampson, McCalla and Kerr (*Am. Heart J.* 1926, 1:717) investigated the heart sounds of the human fetus with the idea of determining the duration and pitch of the sounds, and to establish, if possible, criteria for the prenatal recognition of cardiac abnormalities, especially congenital lesions. Three stages of electron tube amplifications, filtering stethoscopes, a string galvanometer and a system of sound filters were used to record the heart sounds. Among the subjects upon whom fetal heart sound records were obtained, 12 showed no murmurs; 17 presented an early systolic murmur only; 7 showed either systolic or diastolic murmurs which may, or may not, have represented blood currents passing through the patent foramen ovale and ductus arteriosus. One case illustrated congenital pulmonic stenosis; the important feature being a high-pitched murmur throughout the whole of systole.

Sprague and White (*J. Clin. Investigation.* 1926, 3:109) studied the significance of electrocardiograms of low voltage as observed in "a series of 57 patients seen in the past 11 years at the Massachusetts General Hospital in whom electrocardiograms showed that the Q-R-S deflection was not greater than 5 mm. from the base line in any lead. The electrocardiographic and clinical findings are correlated. Low voltage has been found in 44 of these 57 cases (77 per cent.) related to two conditions: (a) Myocardial failure from arteriosclerosis—34 cases. (b) Hypothyroidism—10 cases. . . . . It has also occurred in our series in severely toxic or terminal myocardial states from rheumatic, syphilitic or hypertensive heart disease, mediastino-pericarditis, leukemia, and subacute bacterial endocarditis. In one case it was unexplained and was not incompatible with good health, but occurred in a young woman with complete heart block. . . . . The arteriosclerotic group is most important. Only about one-third are known to be alive. . . . . In 10 cases it accompanied coronary occlusion. All patients known to be dead have died in less than two years after the finding of low voltage, although it is impossible to say how long it may have existed before it was recorded by the electrocardiograph. Those who are alive have all been living less than three years after the low voltage was found. . . . . Low voltage occurred in 10 cases of hypothyroidism. It disappeared in those reacting favorably to thyroid medication. . . . . The decrease in amplitude of the Q-R-S complexes to 5 mm. in patients in the miscellaneous group in terminal states of heart failure or with severely embarrassed cardiac action is further evidence that this finding is an important sign of myocardial weakness. . . . . Excluding the temporary effect in hypothyroidism low voltage has never been found, in our experience, in records from normal hearts. It is a finding of diagnostic and prognostic importance in forming an opinion of the myocardial ability of any individual."

Talley and Reed (*Am. Heart J.* 1926, 1:262) studied 28 cases of bundle branch block. In the group there were 19 men and 9 women. The youngest case was a boy fifteen years old with congenital heart disease. The other cases were all over 40 years of age. Electrocardiograms in 19 cases showed right bundle branch block, one with temporary right and three with typical left, one with both temporary left and right bundle branch block, and four with characteristic left branch defect with reduced voltage. All of the cases showed some degree of cardiovascular sclerosis many to an advanced degree. The prognosis in these cases is usually poor. In the series reported, the left branch cases were among the shortest lived. The majority died in a few months. Prolonged rest, and the restricted use of digitalis, are the therapeutic agents most helpful.

Thacher and White (*Am. J. M. Sc.* 1926, 171:61) obtained electrocardiographic records in 14 cases of myxedema before treatment. They include electrocardiograms and metabolic determinations of ten of these cases after treatment. These records showed a consistently low T wave in Lead II and a general decrease in the potential of all electrocardiographic deflections in all leads before treatment. After treatment the T wave in Lead II showed a marked increase in positive amplitude, and the Q-R-S deflection in all leads became increased.

Vaquez and Douzelot present a book ("Les Troubles du Rhythme Cardiaque," 1926, J. B. Bailliere et Fils, Paris) on the disturbances of cardiac rhythm.

Willius (*Am. Heart J.* 1926, 1:576) presents electrocardiographic evidence of complete bundle-branch block in 105 cases. Ninety-nine of these cases were of the right branch type, while in 6 cases the left branch type occurred. He states that: "The infrequency of complete left bundle-branch block has been ascribed to anatomical differences of the two branches. The right branch passes directly to the large papillary muscle of the right ventricle as an undivided structure, while the left branch divides almost immediately, spreading out in a fan-like manner, rendering complete obstruction unlikely, except by a very extensive lesion."

In analyzing the electrocardiograms of complete right bundle-branch block, Willius divides these records into four groups dependent upon the variation in notching of the Q-R-S complex. Regarding etiology,—52 per cent. of the cases showed myocardial disease, associated with hypertension, 41 per cent. occurred in arteriosclerotic myocardial disease, while only 4 cases (4 per cent.) of cardio-vascular syphilis were represented. The incidence of rheumatic heart disease was only 2 per cent. of the cases. These graphic abnormalities occur in patients with quite marked and extensive cardiac disease. Carter is quoted as follows: "An organic lesion confined to one branch of the A-V bundle is hardly one which can be regarded as jeopardizing life. We find that a bundle-branch lesion may be present for many years, and the heart still show general efficiency."

Wilson, Wile, Wishart and Herrmann (*Proc. Soc. Exper. Biol. & Med.* 1926, 23:275) observed noticeable changes in electrocardiograms following administration of arsphenamin in four cases of cardiac and aortic syphilis. "The patient with syphilitic myocarditis with complete right bundle-branch block, developed an abnormal idio-ventricular rhythm following the administration of .2 gram of arsphenamin, and died a few days later. For several weeks preceding the treatment his condition had been stationary. Three patients with syphilitic aortitis developed diphasic complexes suggesting incomplete bundle branch block following intensive arsphenamin therapy. These observations indicate that administration of arsphenamin in connection with cardiac syphilis, may sometimes be followed by myocardial changes of an undesirable kind." The suggested explanation for these electrocardiographic changes is a rapid destruction of the luetic lesion, and replacement by scar tissue, with injury to the intraventricular conducting system directly or to interference with coronary circulation.

PHARMACOLOGY

Cattell (*J. Pharmacol. & Exper. Therap.* 1926, 27:287) asserts that: "The speed of digitalis action is slowed by previous exposure of the heart to quinidine solutions. In these experiments it took on the average 66 per cent. longer for the digitalis to produce its characteristic effects when the heart was first perfused with quinidine. Quinidine added to the digitalis solution was ineffective in delaying the action of the latter drug. Digitalis appears not to modify the action of toxic concentrations of quinidine."

Dresbach and Waddell (*J. Pharmacol. & Exper. Therap.* 1926, 27:9) after investigating the action of strophanthidin in cats with denervated hearts state that the emetic action of the drug is very prominent and that direct cardiac effects are minimized, or may be lacking altogether in the presence of violent emesis. These authors suggest that the emetic action of the drug is entirely central.

Gruber and Roberts (*Am. J. Physiol.* 1926, 76:508) report that adrenalin (alkaloid and synthetic) in dilute solutions causes vaso-dilatation of the coronary vessels in rabbits, cats and rats. In concentrated solution adrenalin (alkaloid and synthetic) produce vaso-constriction of the coronary vessels of the same animals. However, adrenalin chloride and suprarenalin cause dilatation of the coronaries in all dilutions in nearly all hearts so tested. The authors state: "From our experiments with adrenalin upon the coronary circulation we can conclude that the sympathetic nervous system supplies both vaso-dilator and vaso-constrictor fibres to the coronary circulation of the heart."

Gruber and Roberts (*J. Pharmacol. & Exper. Therap.* 1926, 27:327) tested the effect of barbituric acid derivatives in dilute solutions on the coronary arteries and found that they all produced coronary vasodilatation when injected into the perfusate of an isolated cat or rabbit heart. Concentrated solutions produce variable results. The method used was described earlier in the year by these authors.

Keith and Whelan (*J. Clin. Investigation.* 1926, 3:149) report on the action of ammonium chlorid and organic mercury compounds. Normal persons, a group of patients who showed a variety of pathological conditions, and dogs were studied. The authors conclude: "Following the administration of ammonium chlorid and its absorption into the blood stream it has been shown experimentally that the ammonia is quickly synthesized to urea. The liberated hydrochloric acid increased the chlorid content of the blood and tissues with the production of acidosis. Under the conditions of these experiments diuresis may or may not occur after the exhibition of an adequate amount of ammonium chlorid. . . . Organic mercury compounds cause an increased excretion of chlorid and inorganic fixed base, without evidence in the blood or urine of a change in acid-base equilibrium. The basic ions, sodium and potassium, may be excreted independently. Diuresis occurs usually but not always. . . . Ammonium chlorid and organic mercury compounds used in combination produce diuresis when singly they fail to do so. . . . The evidence at hand indicates that the activity of these diuretics is not limited to the kidney, but that extrarenal factors enter into consideration."

Wilson, Herrmann and Wishart (*Proc. Soc. Exp. Biol. & Med.* 1926, 23:271) were unable to demonstrate that digitalis increased the refractory period of the ventricular muscle of the dog. The method used was that employed by Lewis and Drury when they demonstrated that strophanthin increased the refractory period of the auricular muscle.

DRUG TREATMENT

Digitalis

Harrison and Leonard, (*J. Clin. Investigation.* 1926, 3:1) in an investigation of the effect of digitalis on the cardiac output of morphinized and trained unnarcotized dogs, showed the following results: "The calculated 'full therapeutic dose' of the drug caused an average decrease of approximately 25 per cent. in the cardiac output per minute. . . . Smaller doses than the above caused a definite but smaller decrease and larger doses a greater decrease in the cardiac output per minute. . . . The beneficial action of digitalis in cardiac insufficiency with normal rhythm is to be attributed to two factors: (a) the effect on contractility—diminished work, and (b) the effect on tonicity—increased cardiac efficiency from decreased regurgitation and diminished dilatation. It is believed that digitalis has a more striking effect on the work of the decompensated heart than on the work of the normal heart. . . . The contraindications for digitalis may be summarized as those conditions in which the clinical picture indicates acute circulatory failure or shock, without evidence of visceral or peripheral congestion."

Jacobsen and Davison (*Am. J. Dis. Child.* 1926, 32:373) in a report on digitalis therapy in cardiac decompensation in a group of 26 children suffering from severe myocardial failure affirm that large doses of digitalis are beneficial in causing a loss of edema and an increase in the patient's comfort. An accumulation of one-half grain (0.03 Gm.) of dried digitalis leaves per pound of body weight will usually produce the desired effect in children. A subsequent daily dosage of 3 grains (0.2 Gm.), which probably represents the daily excretion, will usually maintain this effect without causing symptoms of intoxication (nausea or marked slowing of the pulse). For children suffering from cardiac decompensation, 3 grains (0.2 Gm.) of the dried leaves of digitalis may be given by mouth in capsules every six hours until nausea develops (usually after from four to eight doses). The amount should then be decreased to 1½ grains (0.1 Gm.) of the dried leaves twice a day, to replace the amount which the patient excretes daily. This dosage may usually be continued indefinitely. However, should nausea or marked slowing of the pulse develop on this reduced dosage, digitalis should be discontinued and not readministered until one or two days after all symptoms of intoxication have disappeared. For patients who have been vomiting before digitalis therapy is begun, 30 minims (2 cc.) of the tincture of digitalis diluted with 1 ounce (30 cc.) of physiologic sodium chloride solution may be given by rectum every six hours until the pulse rate is reduced (usually after from four to eight doses). The amount should then be reduced to 15 minims (1 cc.) diluted with 1 ounce (30 cc.) of physiologic sodium chloride solution twice a day.

Otto and Gold (*Arch. Int. Med.* 1926, 37:562) report a case of ventricular premature contractions in a brass finisher 66 years old, in whom the diagnosis of arteriosclerosis, hypertension, and enlarged heart had been made. In this case digitalis in full doses given at once completely abolished spontaneous premature ventricular contractions, whereas 3 grains daily of the powdered leaf for 4 days failed to abolish the arrhythmia.

Stewart (*Am. Heart J.* 1926, 1:687) has recorded observations on the effect of digitalis in the presence of auricular premature contractions in a youth 18 years old, in whom full therapeutic doses of the drug always brought about disappearance of the premature beats. Recurrence of the extrasystoles could be prevented by regular doses of digitalis.

Diuretics

Marvin (*J. A. M. A.* 1926, 87:1016) reports on the use of merbaphen (novasurol) as a diuretic in congestive failure. "Twenty-six cases were given 1 or 2 c.c. of merbaphen intramuscularly or intravenously; and of these 17 had had adequate doses of digitalis and theobromine or theophylline, and 15 had had repeated doses of both merbaphen and theophylline over a long period. Merbaphen and theophylline (5 grains daily for 2 days) each failed in 7 cases. Of the 7 cases failing with theophylline, 4 subsequently responded well with merbaphen. Of the 7 merbaphen failures only 2 subsequently responded well with theophylline. Only 3 cases failed to respond to both. Merbaphen caused intense diuresis in 4 cases, theophylline in 5 cases. Eight of these 9 last cases were arteriosclerotic heart disease. Ammonium chloride was given with merbaphen to 4 cases. In 3 of these it worked better than merbaphen alone, and in the fourth a comparison was not made. The response to the usual digitalis treatment was better than that to merbaphen. Toxic effects were observed in 8 cases out of 26, stomatitis with salivation in 4 cases, bloody diarrhoea in 2 cases, sterile abscess in 2 cases, and collapse in 1 case." The author states: "While merbaphen occasionally proves a powerful diuretic, it should probably be employed only in those patients who have failed to obtain relief from theophylline or theobromine."

Marvin (*J. A. M. A.* 1926, 87:2043) also studied the value of the xanthine diuretics in congestive heart failure. "A group of seventy-seven adult patients with advanced congestive heart failure were treated with digitalis and diuretics of the xanthine group, theophylline, theobromine, and theobromine sodiosalicylate. Thirty-six were made edema-free by digitalis alone. Of the remaining forty-one, thirteen

were entirely relieved of edema by one or more of the diuretics employed, five others had well marked diuresis with loss of most of the edema and five more were moderately benefited. Theobromine was far more effective than theobromine sodiosalicylate, and was equally unaccompanied of undesirable side-actions. Theophylline was by far the most potent diuretic of the three preparations, although its usefulness in some cases was limited by nausea and vomiting that followed its use. There is evidence to indicate that the xanthine diuretics are most effective in the arteriosclerotic-hypertensive heart disease group, as contrasted with the rheumatic heart disease group."

Saxl (*Wien. klin. Wchnschr.* 1926, 39:816) reports favorable results by administration of merbaphen (novasurol) by mouth in patients with cardiac edema. He administers 0.2 Gm. daily in a hardened gelatin capsule after breakfast. Renal insufficiency, excessive hypertension, anemia and diarrhea are contraindications.

Serby (*Arch. Int. Med.* 1926, 38:374) studied the action of merbaphen (novasurol) in six cases of marked cardiac insufficiency. The injection of 1 cc. of the drug intramuscularly or intravenously, twice a week, caused profuse diuresis. This action appeared three hours after administration; it lasted twelve hours in young persons, and from twenty-four or forty-eight hours in elderly and weak individuals. In some cases, the drug did not cause diuresis, even though no renal injury was produced.

Epinephrin

Garipuy and Mériel (*Presse méd.* 1926, 34:180) were able to resuscitate a newly born infant by the intracardiac injection of 1 cc. of a 1-1000 solution of adrenalin. Prior to this injection, artificial respiration had been unsuccessful for a period of 5 minutes.

Menninger and Heim (*Am. J. M. Sc.* 1926, 172:425) affirm that the rectal absorption of epinephrin in relatively large doses is unreliable, producing little or no effect in about 50% of cases. When it is effective, the systemic effect, while slower in reaching a maximum, persists over a much longer time than when the substance is given hypodermically. The rectal method of administration should be advantageous for patients requiring a prolonged effect as in asthma and Addison's disease.

O'Donovan and FitzPatrick (*Brit. Med. J.* 1926, 2:524) report on epinephrin in cardiac arrest. A boy suffering from a Colles's fracture was given an anesthetic (type not mentioned). When the fracture was set, and about a minute after ceasing to administer the anesthetic, the boy ceased breathing and the heart stopped. Artificial respiration was without avail. The authors injected about 0.5 cc. of 1:1,000 epinephrin hydrochloride into the heart, and in fifteen seconds it began to beat once more. The boy was apparently dead for at least sixty seconds.

Quinidin

Jamison (*New Orleans M. & S. J.* 1926, 78:809) states that the indications for the use of quinidin are—auricular fibrillation, auricular flutter, and paroxysmal tachycardia. Brilliant results are to be expected in all early cases. He further affirms that in luetic aortic regurgitation quinidin does not have a "happy effect." He states that ouabain in luetic aortic regurgitation is the drug of choice, based purely on clinical grounds, and that the drug relieves dyspnoea to an almost unbelievable extent following intravenous injection.

Wilson, Wishart, Clark and Herrmann (*Proc. Soc. Exper. Biol. and Med.* 1926, 23:273) state that: "When quinidin is given to patients with auricular fibrillation, there is almost invariably considerable increase in ventricular rate. This is accompanied in 1/3 to 1/2 of the cases by the appearance of groups of abnormal impulse formation in the ventricular muscle, or to defective intraventricular conduction."

Miscellaneous Drugs

Bolton (*Brit. M. J.* 1926, 2:482) reports two cases of recovery after intracardiac injection of ether. In one, the heart stopped beating in the course of a herniotomy; in the other case, during labor. In each case artificial respiration and subcutaneous medication were ineffective, but the injection of 1 cc. of ether directly into the left ventricle was quickly followed by a return of the heart beat.

Bullrich (*Rev. Med. Lat.-Amer.* 1926, 11:1689) reports marked symptomatic improvement in a patient with Ayerza's disease following a vigorous course of specific therapy.

Conrad (*Fortschr. der Med.* 1926, No. 6:275) reports the use of cardiazol in over 50 patients in the gynecological section at the Rudolph Virchow Hospital, Berlin. He recommends its use as a cardiac stimulant in collapse resulting from long operations, as well as hemorrhage. The drug can be administered by mouth, subcutaneously or intravenously.

Dock (*California & Western Med.* 1926, 25:636) reports that an important minority of patients with angina pectoris and intermittent claudication are markedly benefited by theobromin sodiosalicylate in doses of 7 to 10 grains three times a day. This dosage can be used indefinitely or reduced if desired. If there is no improvement after a few days' trial, the drug should be discontinued. This author considers that theobromin is worth while trying before operative intervention is attempted.

Miller (*Ann. Clin. Med.* 1926, 4:713) in a study of the clinical application of ephedrin in the treatment of vascular hypotension and bronchial asthma, indicates that the drug is capable

of temporarily raising the systolic blood pressure in some cases. In a few patients with Addison's disease, ephedrin not only increased the systolic pressure temporarily, but also increased the patient's sense of well-being and strength. Two cases of essential hypotension are reported, in which ephedrin was used, and which showed a slight increase of systolic and diastolic pressure. By far the most important clinical application of the drug is in bronchial asthma. Results are reported in 36 cases. Twenty-six, or 72%, of the patients experienced marked relief in their breathing, and the high-pitched rales and prolonged expiratory phase diminished. In four cases relief was not marked, and in six cases, no improvement whatever occurred. It is pointed out that the advantage of ephedrin over epinephrin lies in the fact that the action of ephedrin is more prolonged and that it can be administered by mouth. Still another clinical application of the drug is the liberal application of a 5% solution to the nasal mucous membranes to overcome congestion.

Wedd and Drury (*Heart.* 1926, 112:307) summarize their clinical and experimental observations with veratrum viride as follows: "Alcoholic solutions of veratrum viride, when given to patients suffering from auricular fibrillation, produce slowing of both the auricular and ventricular rates of beating and a fall in blood pressure. These circulatory changes are independent of general toxic effects. Veratrum viride has, in addition to the vagal action already observed, a direct action, similar to quinidin, on the auricular muscle of the dog. This direct action will, on the circus movement theory of auricular fibrillation, tend to slow, and the vagal stimulation tend to enhance, the rate of the auricular oscillations. The relative preponderance of these two actions will determine the resultant auricular rate when the drug is administered to patients suffering from auricular fibrillation. The slowing of the ventricular rate by veratrum viride given orally occurs much earlier than that following digitalis bodies. However, as a therapeutic agent, veratrum viride is somewhat handicapped by uncertainty and irregularity of action. It may be useful in cases in which simultaneous slowing of ventricular rate and lowering of blood pressure is desired."

SURGICAL TREATMENT

Cervical Sympathectomy

Cutler and Fine (*J. A. M. A.* 1926, 86:1972) report seven cases of cervical sympathectomy for angina pectoris. They refer to many other cases in the literature and the theoretical considerations underlying this procedure. In their series two patients died within a period of about six months, and a third has not done particularly well because of advanced coronary sclerosis. One patient died 8 days after operation. The other three cases have shown marked improvement in subjective symptoms. These authors favor the partial Jonnesco procedure, either unilateral or bilateral, depending on the individual case. They consider that patients who have advanced cerebral sclerosis, combined with severe coronary disease, are poor risks for this operation. They do not feel that syphilitic anginas are especially dangerous cases for operation. They state, that from a consideration of their cases: "It becomes evident that a single or bilateral extirpation of the superior cervical ganglion. or of the entire cervical chain, and first dorsal ganglion, will frequently give temporary, complete, or partial relief, and often will fail." "The complete operation is less likely to fail entirely, however, than simple cervical ganglionectomy."

McCulloch (*Am. Heart J.* 1926, 1:370) gives a collective review of the surgical treatment of angina pectoris. He states that: "The opinions which have been expressed as to the value of operation in angina pectoris lead one to conclude that it is a procedure of great value for the relief of this distressing condition, when all other measures have been tried without success, and when the operation is done on patients who have been carefully selected. In such instances the operative mortality is low, and the patient should understand that the operation is only a palliative remedy." He states that more information is necessary regarding the various nerve paths involved in the transmission of the pain.

Miscellaneous Surgical Measures

Allen and Barker (*Am. Heart J.* 1926, 1:693) report an experimental study of the immediate effects on the cardiac rhythm of various operative procedures on the mitral valve. The surgical approach to the mitral valve through the wall of the left ventricle may give rise to ventricular filbrillation. However, entrance to the mitral valve through the left auricle causes no serious disturbance of cardiac rhythm.

Brown (*J. A. M. A.* 1926, 87:379) refers to three patients with Raynaud's disease affecting the lower extremities who had been operated on by Adson, who removed the second, third and fourth lumbar ganglia, the sympathetic trunk and in addition stripped the perivascular tissues from the common iliac arteries, to insure complete removal of the vaso-motor fibers. The results obtained have been very gratifying, and a clinical cure has resulted. The longest postoperative period has been one year. The treatment of chronic, organic obliterative diseases of the extremities presents a different problem. Cases showing trophic disturbances and very distressing pain gained little benefit from the operation referred to above. In the treatment of thrombo-angiitis obliterans the relief of pain for a considerable period can often be accom-

plished by the intravenous injection of foreign protein or of radium chloride.

Cutler (*Arch. Surg.* 1926, II. 12:212) reports the end results of the surgical treatment of mitral stenosis. Only one of his five cases is living. Mitral stenosis signs persist, but the patient has gained 10 lbs. and her general condition is improved.

Jarotzky, (*Zentralb. f. Chir.* 1926, 53:140) referring to the surgery of the mitral valve, suggests the possibility of producing an artificial opening between the auricles by introducing an instrument into the right auricle through the jugular vein. The rationale of this procedure is based on the statement that cases of mitral stenosis with patent foramen ovale have a relatively good prognosis.

Swetlow (*Am. Heart J.* 1926, 1:393) reports a group of 8 cardiac patients suffering from attacks of severe precordial pain, who were treated by paravertebral alcohol injection of the dorsal root ganglia. In each case, satisfactory relief of pain was secured. Of these, six patients were diagnosed angina pectoris. One case was a congenital syphilitic who had aortitis and aortic insufficiency. The other case was a young woman, 19 years old, suffering from mitral stenosis and insufficiency and cardiac decompensation. The injection is made as near as possible to each of the 4 or 5 dorsal root ganglia chosen on the left side. Five to eight cubic centimeters of an 85% solution of alcohol are used for each ganglion. No complications were experienced, and freedom from pain following one injection usually lasted for several months.

Williamson and Ets (*Arch. Int. Med.* 1926, 38:206) in a report on the rationale of therapeutic puncture in pericardial effusions, assert that a not inconsiderable number of patients with substantially uncomplicated pericarditis with effusion die a typical pericardial death; that is, die as the result of the pressure of the exudate shutting off mechanically the great veins. The pressure in the pericardial sac is the real criterion of the danger, and this is not proportional to the size of the exudate, but rather to the rapidity with which the effusion develops. A steady fall in the arterial pressure and particularly a sudden increase in the rate of fall is a direct indication for therapeutic puncture and relief of pericardial pressure.

Yacoel and Giroux (*Arch. d. Mal. d. coeur.* 1926, 19:158) report a case of tuberculous pericarditis with effusion in a man, aged 45. Puncture releasing 350 cc. of fluid did not prevent the reappearance of the effusion in a few days. Then 600 cc. of fluid were removed, followed by injection of 300 cc. of nitrogen. The relief was immediate. The puncture with injection of nitrogen was repeated a month later. The patient soon improved and was able to take a walk daily without discomfort. The punctures were continued every two months, for a year, till the man died from tuberculous peritonitis. The punctures were made in the left fifth intercostal space, 5 cm. from the sternum, using a lumbar puncture needle. The method did not cause pain or marked shock. The authors consider that this procedure might be valuable in the treatment of rheumatic or serofibrinous pericarditis, and that artificial pneumopericardium should be preferred to pericardiotomy, which does not prevent the formation of pericardiac adhesions. Yacoel and Giroux recommend pericardiotomy in acute purulent pericarditis and tuberculous abscess of the pericardium.

Periarterial Sympathectomy

McNealy (*J. A. M. A.* 1926, 86:1968) rather discredits the theories upon which the present operation of periarterial sympathectomy depends, and suggests that in his experience, as well as reports from other workers, it would seem that the present operation should be discarded. He suggests a more careful study of the sympathetic nervous system, and a thorough investigation of the pathology of the various vascular surfaces before operative procedure is attempted. Furthermore, he states that if ramisectomy and ganglionectomy are resorted to in place of the present operation, the operative risk will be greatly increased.

Winslow (*Ann. Surg.* 1926, 83:333) reports three cases of periarterial sympathectomy, two for thrombo-angiitis obliterans with gangrene of the toes, and one for Raynaud's disease of the foot. In no case did the operation exert any influence on the progress of the disease, since all of these patients have subsequently undergone amputations. The reflex findings of Talma are referred to, in which this investigator divided the sciatic nerve of dogs to cause trophic ulcer. In no instances did periarterial sympathectomy of the corresponding femoral artery have any effect on the trophic ulcer. Reference is made to Leriche, who first suggested the operation, and who had, up to 1921, performed 41 periarterial sympathectomies. In some instances remarkable results were obtained, but on other occasions the operation failed. A proper selection of cases would, therefore, seem to be a very pertinent question. In conclusion, Winslow states that: "Whether periarterial sympathectomy is to survive the first wave of enthusiasm accorded it cannot be answered at the present time."

MISCELLANEOUS THERAPEUTIC MEASURES

Hay and Ince (*Lancet.* 1926, 2:799) report their results in the treatment of 9 cases of angina pectoris and 5 cases of hypertension by means of diathermy. They conclude that the treatment did no harm. In nearly every case the patient felt considerably better. In three women the results were unsatisfactory; in these

cases the diagnoses were syphilitic heart disease with anginal pain, menopausal hypertension and extreme hyperpiesia with dyspnea. According to the charts, there was an immediate reduction of blood pressure in several of the patients, and this change for the better tended to continue for a time. Even if the blood pressure showed a tendency to rise later, the subjective improvement often persisted.

Kaiser (*J. A. M. A.* 1926, 87:1012) reports further on his controlled series of 1200 cases of tonsillectomy in children and suggests the following indications for the removal of tonsils and adenoids. (1) Mouth breathing. (2) Frequent attacks of sore throat and tonsillitis. (3) Frequent head colds. (4) Persistent enlargement of cervical glands without other cause. (5) Malnutrition, when other causes are eliminated. (6) Chronic and recurrent discharging ears. (7) Unexplained fevers, in absence of other indications. (8) The presence of positive or suspected evidence of the rheumatic syndrome manifestations, rheumatism, chorea and heart disease, is a definite indication for tonsillectomy.

Lahey and Hamilton (*Surg. Gynec. Obst.* 1926, 42:179) direct attention to a method with which they have succeeded in rehabilitating patients with cardiovascular disease by indirect surgical measures. This consists in the removal of surgical burdens. If there is coöperation between cardiologist, anesthetist and surgeon, not only will the mortality in this group be surprisingly low, but in many instances the cardiovascular reserve will be increased.

Levy and Golden (*Abst. Proc. Am. Soc. Clin. Investigation.* 1926, 2:614) have treated 7 cases of rheumatic heart disease by roentgen rays. The rationale depends on the fact that X-ray therapy is known to influence favorably certain forms of infection. "The dosage was calculated to yield about 10 per cent. of the theoretical erythema dose in the region of the mitral valve. Clinical improvement has been associated with striking changes in the form of the electrocardiogram in four cases. The remaining cases have thus far received insufficient treatment to warrant a report. The modification of the form of the electrocardiogram apparently associated with roentgen ray therapy suggests that an influence, presumably favorable, has been brought to bear upon the lesions in the heart muscle. A limited number of roentgen ray treatments has been given to two patients with streptococcus viridans endocarditis without evident effect on clinical course or electrocardiogram."

McCulloch (*Am. Heart J.* 1926, 1:569) refers to the following points, which tend to improve the nutrition of convalescent cardiac children: mental and physical rest, suitable diet, both as to quality and quantity; heliotherapy; and the removal of foci of infection. He regards gain in weight as a favorable prognostic sign during convalescence, and states that cardiac children frequently show some degree of malnutrition associated with the infection upon which cardiac disease depends. He recommends recording the weight regularly to anticipate, if possible, relapses of rheumatism or heart disease.

Turner (*Am. Heart J.* 1926, 1:747) made a study of the incidence of previous tonsillectomy in 100 cases of subacute bacterial endocarditis. One hundred cases of acute rheumatic fever were also reviewed, and of these 50% showed rheumatic heart involvement. Turner also studied 100 general medical patients admitted to the hospital wards. In this last group, however, patients with rheumatic fever, chorea, rheumatic heart disease, and subacute bacterial endocarditis were excluded. In the general admission group there were 16 persons who had a complete tonsillectomy and 3 partial tonsillectomy. In the rheumatic fever group 31 patients had a complete tonsillectomy and 7 partial tonsillectomy. In the subacute bacterial endocarditis group there were no cases of partial, and only four cases who had had a complete tonsillectomy. He suggests that tonsillectomy, subsequent to rheumatic fever, or to the diagnosis of rheumatic heart disease may tend to prevent the development of subacute bacterial endocarditis.

INCIDENCE AND PREVENTION OF HEART DISEASE

Dublin, (*Am. Heart J.* 1926, 1:359) one of the statisticians of the Metropolitan Life Insurance Company, states that the annual quota of deaths due to heart disease in the United States is now close to 200,000, and that the various manifestations of heart disease are first in the order of causes of death. He points out that a child at ten years of age is three times as likely to succumb eventually from heart disease as from tuberculosis, and that one in every five of the living population at the age of ten will eventually die of organic heart disease. Reference was made to the gradual improvement in the death rate of tuberculosis and other diseases that are gradually coming under control. This will prolong the life of many additional persons who will eventually be victims of heart disease, apoplexy, cancer or Bright's disease. He affirms that as time progresses it is quite likely that heart disease, as the first in order of the causes of death, will increase rather than decrease.

Lindsey and Talley (*Atlantic M. J.* 1926, 29:752) state that cardiac disease in children is essentially the result of tonsillitis, acute rheumatic fever or chorea. Other local or general infections are important, but play a minor part. The authors state that cardiac disease in children can be prevented by educating the public, by more convalescent homes, by eradicating all possible foci of infection, by rational hygienic

and dietetic measures, and by prolonged rest, both for the potentially rheumatic child and for the child convalescent from acute rheumatic fever, chorea or acute infections.

McDonald (*M. J. Australia.* 1926, 2:269) thinks that the solution of the problem of employment of the cardiac patient lies in the readjustment of the relationship of worker and employer. Fear of the Workers' Compensation Act guides the attitude of the employer, and he cannot be criticized if he refuses to employ a man who may within a short time become a heavy burden on industry. Amendment of legislation is needed which will permit an employer to pay to the partially unfit an amount less than the basic wage, proportional to the worker's capability and which will safeguard the employer from claims of compensation for a disability from which the worker suffered prior to employment.

Ray, (*J. State Med.* 1926, 34:88) in a discussion of prevention and arrest of rheumatic disease, asserts that nearly one sixth of the total invalidism of Great Britain is directly due to diseases classed as "rheumatic." Each year these diseases alone cost the Approved Societies nearly 2,000,000 pounds in sickness allowances. Furthermore nearly 3,000,000 weeks of unemployment are occasioned thereby. The importance of a publicity campaign emphasizing the need for a concerted effort to protect children from the devastating effects of rheumatic disease is strongly urged. Ray recommends the establishment of special hospitals for the treatment of children who have had an attack of rheumatic fever.

NEW HAMPSHIRE MEDICAL SOCIETY

The One Hundred and Thirty-Sixth Annual Meeting

NEW CASTLE, N. H., JUNE 22, 1927

(Continued from page 795, issue of November 3)

GENERAL MEETING

MEETING called to order at 11 o'clock, by the President, Dr. David W. Parker, Manchester.

REV. WILLIAM SAFFORD JONES, Portsmouth: I would like to read a very interesting and significant extract from the Apocrypha, 38th chapter of Ecclesiasticus:

"Honour a physician with the honour due unto him him for the uses which ye have of him: for the Lord hath created him.

For of the Most High cometh healing, and he shall receive honour of the king.

The skill of the physician shall lift up his head; and in the sight of great men he shall be in admiration.

The Lord hath created medicines out of the earth, and he that is wise will not abhor them.

Was not the water made sweet with wood, that the virtue thereof might be known?

And he hath given men skill, that he might be honoured in his marvellous works.

With such doth he heal men, and taketh away their pains.

Of such doth the apothecary make a confection, and of his works there is no end, and from him is peace over all the earth.

My son, in thy sickness be not negligent, but pray unto the Lord, and he will make thee whole.

Leave off from sin, and order thine hands aright, and cleanse thy heart from all wickedness.

Give a sweet savour and a memorial of fine flour, and make a fat offering as not being.

Then give place to the physician, for the Lord hath created him: let him not go from thee, for thou hast need of him."

Invocation

Our Father, in whom we live, and move, and have our being, open our eyes that we may behold Thy Fatherly presence ever about us. Cleanse all our labors and our prayer. Help us to see that labor is the most holy service of man. May we realize that these, our servants, are engaged in a divine ministry, not only for the bodies but for the souls of men. May they realize whose servants they are and become perfect instruments of Thy will and in all things serve their fellowmen in the Christlike spirit of compassion and sympathy and love. Amen.

PRESIDENT: The paper by Dr. Orrin Sage Wightman, of New York, which was to have been given tomorrow, will be given today, and will be the last paper on this morning's program in place of Dr. Foster's, of Manchester. Dr. Foster's paper will be given tomorrow, in place of Dr. Wightman's.

ADDRESS OF WELCOME, BY JOHN H. NEAL, M.D., PRESIDENT OF THE PORTSMOUTH CHAMBER OF COMMERCE

Mr. President, Members of the N. H. Medical Society, Woman's Auxiliary, and guests of the N. H. Medical Society, and guests of any member of the N. H. Medical Society:

There are some occasions which I appreciate. This is one of them. I happen to be a member of the N. H. Medical Society, and I happen to represent, as President, the Portsmouth Chamber of Commerce, which is the servant organization for the City of Portsmouth and vicinity, and it is, I say, my pleasure to extend to you the courtesy and favors and freedom of the City of Portsmouth. You will find through the Portsmouth Chamber of Commerce all the information you would be seeking. This, of course, is a historical locality and many who would be here would be interested in some of the his-

torical points of the City of Portsmouth. If you will communicate with the Chamber of Commerce at the office, at any time, in any way, directly or by messenger, or by telephone, and make known to that office just what you desire, you will have some one escort you, and you and your friends will be given all the information that you desire. I am not going to say to you, that I live in the best State and the most beautiful city that the Almighty God has made and that the sun ever shone on. I expect everybody in the State is going to be as loyal to the State as I am to the City of Portsmouth.

The City of Portsmouth is known as the "City of the Open Door"; we have so advertised it. Everybody is welcome. Just before the great drought struck the city, it was called "The Wide-Open City." We have had three reservoirs dry up,—The Frank Jones Brewing Co., the Eldridge Brewing Co., and the Portsmouth Brewing Co. You are welcome here. There is one thing, however, you may not understand and why I am welcoming you to the City of Portsmouth when you are in the Town of New Castle. If you have any doubt of my right, you have only to go to any official of the Town of New Castle and he will give you a certificate which will certify that the President of the Chamber of Commerce of Portsmouth, N. H., has the right to extend to the visitors to Portsmouth all the courtesies of the Town of New Castle. New Castle is a part of the City of Portsmouth, as far as the Chamber of Commerce is concerned. This is an historical town and you are in one of the most beautiful places in the State of New Hampshire,—that is saying a lot, when we all know that New Hampshire is the Switzerland of America. I think you.

REPORT OF COMMITTEE ON ARRANGEMENTS, DR. E. B. EASTMAN

The Committee on Arrangements has very little to tell you if you follow your program. Tomorrow at 1 o'clock there will be a luncheon for members of the Auxiliary and wives and daughters of attending physicians; tomorrow night at 7 o'clock there will be the banquet. Then, the meetings of the Woman's Auxiliary, General Meeting at 2 P. M. and all visiting ladies are invited to attend.

Those registered at the hotel will be given a ticket to the banquet and luncheon for members of auxiliary, this being included in their rates. Those not registered at the hotel will purchase a ticket, $2.50 each, for the banquet.

Dr. Clare, Chairman of Exhibits, has had a little dodger printed, which you will find interesting reading, and you will enjoy the exhibits.

I wish to say, that the management of the hotel wishes to please and the management at the desk will try to take care of you.

PRESIDENT: Great credit is due to Dr. Clare. He has put a great deal of effort to get these exhibitors here and has assured them that they would get recognition at this time and would get advertising commensurate to the place. These exhibits are a source of revenue and we will receive from them an income to pay expenses of these meetings. I think we are under obligations to them, and I ask you to help Dr. Clare as much as you can.

PRESIDENT: Is the committee ready to report on Visiting Delegates? Any delegate from any State, I would ask to rise.

DR. ORRIN SAGE WIGHTMAN, of New York: I have been full of conventions. The medical profession throughout the country have problems,—we have problems, possibly, that don't come to you. We increased our dues a while ago, and now we have too much money. A problem. Unfortunately, as Ex-President of the State Board, I am in favor of increasing the dues, in order to forward several matters. Wherever there is a will there is a way. If we can get the financial standpoint impressed on the medical mind, I think we can take care of everything in a very wholesale way. Look out for Medical Publicity. They got me into a mess in Washington. In New York City, they don't like the way cosmetics are generally used. I introduced a resolution in the House of Delegates at the Washington meeting; Dr. Sullivan seconded it. Result, it went through the press naming me as the new censor of the lipstick. That is what you get trying to be decent.

The liquor resolution at the A. M. A. was a very carefully worded affair. Therapeutics and the question of the right of Congress to practice medicine, or telling the doctor how to take care of the patient, are matters to be thought of carefully.

The exhibits here are very advantageous. I was talking with Dr. Clare about them and the labor attending getting them together. You cannot make bricks without straw. Considering that, I got $40,000 worth of advertising for my Journal. My budget is $50,000 a year to run the Journal. I think you have got to treat your advertisers with a certain amount of advertising. You know when they call you a gentleman, that they think you are fine. We asked what we could do to make our Journal profitable. That cost me $175, but I bet you I got $5,000 worth of advertising. I am always willing in New York to spend $1 to get $10, and usually I get more than my $10 back. The Hygeia has a lot of practical information. I was surprised to see the number of advertisements it takes to make it go, as well as subscribers. It takes about 50,000 circulation to make the thing break even. I am very sympathetic with State Journals which have a small membership. Those are problems which take

your influence to make good. The more I am in convention work, I think the game is bigger than anyone of us realizes. Sometimes we think we have ideas that are really big, and you find you are only one spoke in a big wheel. There are not so many Moses leading out of the wilderness as we might think.

PRESIDENT: We have in this Society very few doctors who have been practicing over fifty years. Very few men have been able to apply the principles of medicine for that length of time, and I think those men who have survived that long should receive a great deal of our reverence.

I have here the names of four men in the State who have been in practice over fifty years. Dr. Leete, of Concord; Dr. C. H. Fairbanks, of Dover; Dr. F. B. Perkins, of Derry; and Dr. William O. Junkins, of Kittery, Maine.

Dr. Junkins is present, and I take great pleasure in presenting him to this gathering.

DR. JUNKINS: *Mr. President, Ladies and Gentlemen:*

The day that I was twenty-one years of age, the fond mother took me into the sitting room and said to me, "William, what are you going to do for a living?" I told her I had not given it any consideration whatever. She thought at my time of life it was about time that I considered it. She said, "I want you either to be a minister or a doctor." I don't know the connection between the two. In regard to the former, I was booked up on the catechism somewhat and not very well versed on the Bible, so I concluded to study medicine. That very week I called upon a local physician and he agreed to take me as a student. That was the way we studied medicine back in 1867 and 1868. I used to recite twice a week.

I was raised on a farm, the only son, and had to work. I worked on the farm in the spring and summer. I attended lectures in the spring, and school in the winter. I devoted about three hours in the evening after the day's work was done, to studying medicine, but, very fortunately for me, the last year I attended the Portland School for Medical Instruction, where I got some clinical practice. After four years, I graduated at Bowdoin. In 1872, Dr. Clough in the town of Greenland died. The town of Greenland is 7 or 8 miles from the town of New Castle. Two weeks after the doctor's death I located there. I spent twenty years with those people. I had at that time no constitution to speak of. There were old men there, men who didn't care to practice medicine nights, so I got about all their night work. We cannot advertise legitimately in the papers,—that is, William O. Junkins, M.D., etc., etc.,—but there are sometimes in the country practice ways by which we can do considerable advertising legitimately. I had been in Greenland but a short time before I was called to Newington to see a young man with, what they called in those days, consumption tuberculosis. It was very rarely that we heard that name. My predecessor said this young man had but a few months to live and the young man concluded to have the young doctor to look him over. I gave him glycerine three times a day, a nutritious diet, and in three months he was on the road to recovery, and he is alive today.

The next case I had to advertise me was in North Hampton. There was a gentleman up there whose physician was near sighted, very much so, and his prognosis was very unfavorable, and he said the man could not live. One night they sent for the doctor; he was engaged on another case. He said, "Go over to that young doctor in Greenland." Soon after my arrival, I called for a spoon, put it on the base of the patient's tongue, and when I did an abscess broke. It is needless to say that when the man (who was a carpenter) went to his carpenter shop to work, there is no doubt that I lost a patient.

I want to tell you how advertising will help a man. In the town of Newington, during the first years of my practice, I had four cases of convulsions. I know every one of you is saying "the doctor has my sympathy." In the fifty years I have practiced medicine I don't think I have had more than six or eight cases of convulsions but the first year of my practice I had four cases. In the town of Newington, a lady had been sick two years. Dr. Parsons, a physician of Portsmouth, had assisted me and it was impossible for us to control her toxemic convulsions. In those days every patient was bled. Well, I had recently read in the London papers that they injected morphine hypodermically. How would it do to try it on this woman? I thought, this woman cannot recover unless we try it. In those days our morphine was carried around in our bags; catheters were unknown. Dr. Parsons said to me, "I cannot guess as to a 1/4 grain, I shall have to go to the druggist and get it." I said, "Very good, I will measure it." I presume I took more than 1/4th of a grain. I injected it into the woman's arm, and in five minutes after I injected it she stopped breathing. Dr. Parsons stood on one side of the bed and I on the other. We kept raising her head up and down. Every time we raised her head and dropped her back she breathed. We kept that up for 1/2 hour, when her respirations were 20. She was then out of danger. The baby was born within an hour. She had no more convulsions and that baby is employed today in one of the manufacturing companies of Portsmouth.

One more case and then I will close.

In the town of Newington (these cases, by the way, occurred in the first year of my practice) a young man was mowing out in the haying

field with an old fashioned scythe, when he tripped, fell on the edge of the scythe, cut the inferior attachment of the patella, the blade of the scythe passing between the femur and the ligaments. Nothing was left but the posterior ligaments at the back of the leg. I could feel the pulsation of the popliteal artery, but the man who was working with him realized that if they didn't carry him carefully into the house that the lower limb would drop from the femur. They placed him on a board, took him into the house and sent for me. I put the leg straight and sewed the wound up with silk sutures and left word that I would come around very early the next morning and see the patient. I went into Portsmouth, saw two or three leading physicians there, but got no advice. Never had had anything of that character, they said. I called upon a naval physician on the yard, with like results. A few weeks previous to this an old doctor that had retired presented me with his books, and in that library was Cooper's Surgery, I presume printed 100 to 150 years ago. In that surgical book, for wounds of that character, they advised the use of cold water. That was long before the Volstead Act. Now, the next morning I hurried there; took a common tin pail; made some holes through the bottom of the pail; put in these holes tooth picks of wood, so that I could keep a continuous dripping of the water on the wound. I kept that up for two weeks. During that time there was not one drop of pus that showed itself. They removed him to his home at the end of two weeks, and after another week he concluded he would sit up in a chair, and, in tipping back, over he went backward and broke the wound all out fresh again. I sewed it up. After two days I was obliged to resort to cold water again, but, needless to say that within 48 hours the pus was controlled. The man made a good recovery, with a slight anchylosis of the leg. I sometimes thought that the water we used with it may have had something to do with its purity.

Mr. President, gentlemen, members of the N. H. Medical Society, as a member of that society and as a resident of this vicinity, I want to tell you that I appreciate very much the N. H. Medical Society coming here and having its Annual Meeting. Come again.

PRESIDENT: I want to say that I have made a grave mistake. There are others in the State who have practiced over fifty years. Dr. Anthoine is one of them, and he is present.

I think we are very fortunate in having Dr. Junkins with us today, and his remarks were very interesting and I think of great value, and they make us feel that probably we, of the modern generation, are not making of our resources as much as most of the doctors of Dr. Junkins' day did of their resources.

DR. I. G. ANTHOINE: I think I entered the Portland School for Medical Instruction at the same time the doctor who has just spoken did. My experiences have been very similar to his. I had to work my way along, in teaching school until I got through with my studies.

I want to report a case I had the first year of my practice, to show the difference between surgery then and surgery of today. I was called several miles away to see a young fellow about 15 years old, who had run his hand into the plane and chopped it all to pieces. I had to amputate at the junction of the middle and lower third. At that time they had just commenced to use absorbent cotton. I thought I would do it up and leave it dry. We used to use water and keep such cases moist. Silk was used for sutures and we had to leave a part of the ligatures in. We didn't know then that we could leave silk in a wound. In about eight or nine days, I took off the dressing; it had held; and there was no pus except perhaps a drop just around the ligature. I speak of this to show the difference between surgery then and today.

I had another obstetric case. A woman about 35 years of age was delivered of a child which weighed about 14 lbs. The head was born all right, and I thought I was going to lose the child. I got laceration of about 2½ inches; then we used wire sutures. I think I put in about seven, commencing at the upper part of the laceration and worked down. I did it up by lamp light, no trained nurse to assist. In about 2 weeks I went to see her and told her to stay in bed until I came again and took out the sutures. I found her out of bed. I think everything was all upset. It was some job. I said to her, "Don't have any more babies; if you do, don't send for me." In about 2½ years, they sent for me. Had to use instruments the same as at the other time. Inspected the perineum; didn't get laceration enough for a stitch. I thought it was quite a remarkable case. I could think of more, but I don't think I will take the time.

DR. H. O. SMITH: There is a word that I would like to say. There are a number of physicians in the State who have practiced medicine for 50 years, or more, but there is only one man in the State who has been a member of the N. H. Medical Society for that time,—Dr. I. G. Anthoine, of Nashua.

I move that mention be made in the minutes of this meeting that Dr. I. G. Anthoine, of Nashua, has been a member of the N. H. Medical Society for over 50 years,—the only member for that length of time; that he was present here and addressed the meeting.

Seconded; unanimous vote.

The following papers were read and discussed:

***The Physician of the Future*, George S. Emerson, Fitzwilliam. Discussion opened by F. E. Clow, Wolfeboro; G. C. Wilkins, Manchester.**

***Premature Separation of the Placenta—With Case Histories*, Robert O. Blood, Concord. Discussion opened by Frederic P. Scribner, Manchester; George A. Tredick, Portsmouth.**

After Effects of the Toxemia of Pregnancy, Fred E. Clow, Wolfeboro. Discussion opened by A. W. Mitchell, Epping; James J. Buckley, Dover; D. E. Sullivan, Concord.

WEDNESDAY, JUNE 22, 2 P. M.

PRESIDENT: I want to present to you a man who has come all the way from Texas, a delegate to the House of Delegates, A. M. A., editor of the *Journal*, and, as near as I can find out, everything in the medical line in his part of country.

DR. HOLMAN TAYLOR, Texas: I thank you, Mr. President. I am enjoying the meeting immensely, and shall enjoy it more. I will say we shall be delighted to have any of you come to Texas to see us. We will give you a good time when you come to the State Meeting, not very much different from what you have here. The type of medical men who make these meetings average up pretty generally the same no matter wherever you go, very much the same in New England as in Texas. We will make you welcome when you come to Texas. I thank you.

President's Address, David W. Parker, Manchester.

The Trend of Nutritional Science, H. E. Barnard, Ph.D., Chicago. Discussion opened by Charles D. Howard, N. H. State Chemist, Concord; Frederic P. Lord, Hanover.

Some Aspects of Pancreatitis, John P. Bowler, Hanover; Harold A. DesBrisay, Hanover. Discussion opened by George C. Wilkins, Manchester; Arthur T. Downing, Littleton.

Syphilis of the Circulatory System, with especial reference to aneurysm of the aorta (illustrated by moving pictures), Orrin Sage Wightman, New York City. Discussion opened by B. W. Robinson, Laconia; P. J. McLaughlin, Nashua.

THURSDAY, JUNE 23, 10 A. M.

Meeting called to order by President Parker.

INTRODUCTION OF VISITING DELEGATES

Delegates from the Maine Medical Society present: Dr. Thomas A. Foster, Dr. James A. Spalding.

DR. FOSTER, Portland: A short time before coming down here, I came across a book in my library in which this record had been written by my father 55 years ago:

REPORT OF THE DELEGATE TO THE NEW HAMPSHIRE MEDICAL SOCIETY, 1871 — NATHANIEL SHANNON, M.D., CAPE ELIZABETH, ME.

Mr. President and Gentlemen of the Maine Medical Association:

I have attended to the duty assigned me as delegate of this Association to the New Hampshire Medical Society, holden Tuesday and Wednesday of this week. There were quite a good number of the physicians of New Hampshire present, and several delegates and guests from abroad. Among the latter was the President of the American Medical Association, Dr. Logan, of California.

Some discussion was indulged in, respecting the present liquor law of New Hampshire, as bearing upon its sale for medicinal purposes by apothecaries.

A resolution was passed against intemperance. Also a resolution bearing upon physicians procuring abortion.

At twelve o'clock, the President, Dr. Hall, of Portsmouth, delivered an interesting address. Then a paper on pelvic abscess, by Dr. Parsons, of Portsmouth.

At half past two, an excellent dinner was served at the Eagle Hotel, after which many pleasant sentiments were listened to.

From eight to ten in the evening, there were interesting reports of cases.

Dr. Hill, of Dover, reported a case of a patient swallowing a tooth plate, with two teeth attached, with a hook on each side of the plate. The plate was an inch and five-eighths wide. After twelve days and six hours, this plate made a journey through the alimentary canal, without much physical or pecuniary loss, for the teeth were very soon worn by the patient.

A semi-annual meeting of this society is to be holden at Center Harbor, at the head of Lake Winnepesaukee, the first week in October. The next annual meeting is to be the second week in June, at Concord.

Yesterday I had the pleasure of listening to addresses by President Parker and Mrs. Parker at the Woman's Meeting. I want to say that Maine is behind this movement of the N. E. Medical Council and is very much interested.

DR. CRAM, Vermont: I want to say that I am instructed by the Vermont Medical Society to bring her greetings. I wondered this morning where New Hampshire began and Vermont left off. I think probably your problems are very much the same as ours. I think our worst problem is *contact*. Many of our counties lack a large nucleus, a center, at which to get the members together for a medical meeting.

It is a great pleasure to meet with you and I notify you we will be having a meeting at Middlebury this fall, where we are just starting a small hospital and we shall be happy to meet your delegates at that meeting.

PRESIDENT PARKER: Massachusetts has two delegates here, Dr. Lanman and Dr. Joseph Garland.

DR. THOMAS H. LANMAN: *Mr. President and Members of the N. H. Medical Society, and Friends:* As I came up on the piazza I was greeted by an old friend. His remarks were something like this: "I am a delegate from Massachusetts." I said, "Who sent you?" "Oh, Dr. Stone, the President of my society, asked me if I would come up. I said, "I always liked Dr. Stone." I understand one speech would be enough; I think that Dr. Garland will tell you some interesting things about conditions in Massachusetts. I have been very closely associated with Dr. Stone and he is very eager to see a closer relationship between the different societies in New England. He has been working very hard along those lines. I don't see why it is not possible to have a spirit of interrelation between us.

DR. GARLAND: As usual, Dr. Lanman has taken all the wind out of my sails. I have a message from the Massachusetts Society. First, we appreciate the stimulus that the medical so-

cieties are going to receive according to the report from Dr. Lund of THE BOSTON MEDICAL AND SURGICAL JOURNAL. In 1812, there was started in Boston the *N. E. Journal.* In 1823, the *Boston American Intelligencer* was organized, and in 1828 these combined and are now published under the title of THE BOSTON MEDICAL AND SURGICAL JOURNAL. It seems to me proper that the JOURNAL should become a *New England Journal of Medicine and Surgery* in the near future. It would then have reached 116 years since it was organized and it seems to us fitting that it would then become a *New England Journal* in name, if not in fact. I hope that subject will receive the consideration of all the New England States. We know that *in Union there is strength.*

PRESIDENT: We are very fortunate today to have with us as a delegate the President of the Connecticut State Society, a man who has done more personally than any other man in the State of Connecticut to put that State in the enviable position she now holds in Medical Defense Litigation.

DR. WHEELER, President of the State Society of Connecticut: *Mr. President and Members of the New Hampshire State Society:* I am very much overcome at the laudatory introduction of your President. Technically, I am not a delegate from the State to this State society, but to the New England Medical Council, which is to hold a meeting tomorrow, and I expect at that time there will be two or three more present from the State of Connecticut. I could not resist the invitation of your President to take part in at least some of your exercises as a society. I think I am not at all going beyond the bounds of prudence when I say to you that I bear to you the felicitations of the State of Connecticut Medical Society. I am very glad to see so many delegates from other States. At the last meeting of our society there were three other delegates from outside of our State, and those from Massachusetts. We would have been very much pleased if we had had some delegates from New Hampshire, Vermont, Rhode Island, and Maine, and I trust this custom of inter-visitation between State Societies will be helped out by the N. E. Medical Council. I will say that Connecticut stands with New Hampshire and every other State in New England in the effort to place the practice of medicine on that excellent standard where it belongs.

Appendicitis in People Over Fifty Years of Age, Emery M. Fitch, Claremont. Discussion opened by Fred B. Lund, Boston; Eugene B. Eastman, Portsmouth.

Observations of Present Day Application of Blood Transfusion, Homer H. Marks, Berlin. Discussion opened by John F. Holmes, Manchester; James B. Woodman, Franklin.

Uterine Mal-position, George S. Foster, Manchester. Discussion opened by C. S. Abbott, Laconia; John Deitch, Manchester.

Intracranial Hemorrhage of the New Born, Benjamin P. Burpee, Manchester. Discussion opened by Frederic P. Scribner, Manchester; Donald G. McIvor, Concord.

THURSDAY, JUNE 23, 2 P. M.

SYMPOSIUM—ULCER OF THE STOMACH AND DUODENUM

Medical Viewpoint, Harlow Brooks, New York City.

Surgical Viewpoint, John F. Erdmann, New York City.

Radiologist's Viewpoint, Adelbert S. Merrill, Manchester.

Pathologist's Viewpoint, Howard N. Kingsford, Hanover.

Summary, James W. Jameson, Concord.

General discussion.

PRESIDENT: I would like to present to you Dr. Twitchell, President of the Maine State Medical Society.

DR. TWITCHELL: *Mr. President and Gentlemen*—It gives me great pleasure to be here today. You are so near to us it seems to me you are a part of us. What interests you interests us. It was a great pleasure to hear these great men from New York, who are so well known to us, giving us information on this subject. They did not hesitate to make a little fun of each other. While they have given us such detailed statements, when the whole thing is lumped up I am moved to say that we can treat these cases pretty much as we want to and get good results. I shall not speak much on the subject, because I am in rather a provincial city; but we want to know how to treat these cases, and when we do we can go to the writings of men like these, Dr. Brooks and Dr. Erdmann. Most of our cases of ulcer of the stomach and duodenum cannot retain much on the stomach and really are starving to death. This is a time of coöperation and we can get a better diagnosis of conditions by ascertaining them through the medium of the specialist and placing all the cases we have in a modern hospital.

I am very glad to have had the privilege of hearing these gentlemen.

GENERAL MEETING, 5:30 P. M.

Report of House of Delegates.

Report of Trustees.

PRESIDENT PARKER: I wish to thank you for the honor you have done me of making me your President this past year. I have tried to put forward actively all the things I thought would be good for the society. It now gives me pleasure to welcome as your next President, Dr. Emery M. Fitch.

PRESIDENT DR. EMERY M. FITCH: *Members of the N. H. Medical Society*—I wish to thank you very heartily for the honor you have bestowed, through your House of Delegates, upon me. Twenty years ago, when I became a member of the N. H. Medical Society, it seemed to me the highest achievement in the society was like the fellow who picked up the snake, I didn't know as I wanted it.

At this time I want to speak of two men in the

medical society, Dr. William T. Smith and Dr. John M. Gile. Through the efforts of these men I was made a councilor very soon after I joined, and Dr. Smith told me that in getting this position I was to put Sullivan County in good condition. I stayed there a little while and passed on. The class of men who have gone before me make me wonder if I can follow in their footsteps; visiting the different sections of the State, trying to see if I can bring any more harmony into the State society. That is what I would like to do.

In assuming this position that you have placed upon me, one of my first duties is to appoint some man to serve on the New England Medical Council. I was on that Council, appointed for one year; my term has expired. The President of this society becomes a member of the Council; so it becomes the duty of the new President to serve for three years on the Council. The New England Medical Council was organized in Boston and brought into this State by Dr. David W. Parker. It gives me great pleasure to appoint Dr. Parker to serve three years in that connection.

On motion duly made and seconded, adjourned.

OBITUARIES

Christopher Allen Sanborn was born in Newport, New Hampshire, April 5, 1855, and died July 18, 1925. He was the son of Dr. Thomas Sanborn of Newport and great-grandson of Dr. Benaiah Sanborn, both much loved and highly esteemed physicians of New Hampshire. His mother was the daughter of Hon. David Allen of Newport.

Dr. Sanborn received his early education in the public and private schools of Newport and the Hudson River Institute at Claverack, New York. His professional training was in the medical department of Bowdoin College, Brunswick, Maine, and at Bellevue Hospital Medical College in New York City, where his brother, Dr. Thomas B. Sanborn of Newport, had taken his degree. After graduating in 1882 Dr. Sanborn took a complete course in the New York Post-graduate Medical School and from that year until the fall of 1887 was associated with his brother

CHRISTOPHER ALLEN SANBORN, M.D.

in Newport, where for thirty years their father had been the leading practitioner.

On September 16, 1885, he married Miss Mary Braman Mudge of Danvers, Massachusetts. Their first child, a daughter, Christine, was born in January, 1887, and died in August of the same year.

In October, 1887, Dr. Sanborn and his wife visited California and decided to make their home in Redlands.

He rose to a high position in his profession and held the love and esteem of all who knew him. A great student, he was not satisfied to rest on past reputation and returned again and again to centers of medical knowledge to keep abreast of medical progress and come in contact with leaders in his profession. In 1893 and in 1897 he returned to the New York Post-graduate for special courses, and in 1902 and in 1909 he visited hospitals and clinics in Berlin, Vienna and Florence.

From the first Dr. Sanborn took an active interest in the welfare of his community. He served for two years as Secretary of the first Board of Health of Redlands which was organized in 1889.

He was a member of the New Hampshire Medical Society, Southern California Medical Society, American Medical Association, San Bernardino Medical Society; President of Redlands Hospital Association and Examiner of Local Draft Board during the World War. He was a Republican, a Congregationalist, a member of the University Club, Country Club and by inheritance, the Loyal Legion; a Mason, Odd Fellow and Elk.

Three children were born to Dr. and Mrs. Sanborn in Redlands: Augustus Mudge, Thomas and Margaret. To these children the term father meant more than to most, as in him they found not only a wise and loving father, but an interested and sympathetic friend and comrade in all their adventures.

Always unselfish, it was perhaps typical of a life spent in service of others, that he should lose his own while on a mission to bring relief to a patient taken ill at a mountain resort a few miles from Redlands, though his own physical condition demanding freedom from strain, might easily have excused him from such a fatiguing journey.

He leaves, beside his widow, three children and five grandchildren, a sister—Mrs. Robert M. McCulloch of Redlands, a niece—Mrs. Robert Cooley of Milwaukee, and a nephew—Dr. Charles E. Ide of Milwaukee, who for several years was associated with his uncle in Redlands.

GUY HASTINGS GREELEY, M.D.

Dr. Guy Hastings Greeley, of Merrimack, died May 30, 1926, of angina pectoris. His death was very sudden and as unexpected as sudden.

He was born in Medford, Massachusetts, the first day of the year 1868 but his parents went back to the family homestead in Merrimack when he was only a few months old, so that he was, to all intents, a lifelong resident of Merrimack.

His boyhood was varied by several brief residences in Nashua and by a stay of nearly three years in the Azores Islands, where his father, Dr. James B. Greeley, went for his health after the Civil War.

Soon after his return from the Azores Islands he entered St. Hyacinthe College. Later he was a special student at the Institute of Technology, preparing in these two institutions for his medical course at the University of Maryland, being graduated from its Medical College in 1891. He spent two years at Johns Hopkins Medical School as interne and a year at the Massachusetts General Hospital.

He practiced medicine in Hillsborough a few years and then came back to Merrimack, taking up his residence in the old Thornton home.

Dr. Guy H. Greeley was the third son of James B. Greeley, M.D., and Arabella McGaw (Wood) Greeley. He was a great-great-grandson of another doctor, the Hon. Matthew Thornton, Signer of the Declaration of Independence, who lived and died on the same ancestral acres and who practiced medicine in the same vicinity.

He married, December 15, 1898, Mary Bailey of East Jaffrey, who survives him. They had five daughters, of whom four are living,—Ellen Thornton, wife of Charles Tirrill, of New York City; Elizabeth Wood; Ruth Hastings; and Frances Charlotte. He is survived also by his brother, Dr. James T. Greeley of Nashua.

To write the measure of Dr. Greeley's devotion to his community as a physician and as a neighbor would seem to those who did not know him both trite and fulsome. He was the admirable type of physician who will soon be but a memory. He knew no office hours, no roads too bad, no hours too late, no storm too severe. He was advisor, councilor, friend, in ailments both physical and spiritual; in matters pertaining to the family, the town and the State. His loss will be deeply felt for many years over a large part of Hillsborough County.

NASHUA MEDICAL SOCIETY'S MEMORIAL RESOLUTIONS ON THE LATE GUY H. GREELEY, M.D.

Whereas, On May 30, 1926, death claimed another member of this friendly association in the contest against poor hygiene and ill health, in the person of Guy H. Greeley, of Merrimack.

And *Whereas*, Doctor Greeley was born in Medford, Mass., January 1, 1868, and fitted for college in Nashua's schools and graduated with the degree of M.D. from the University of Maryland in 1891,—

And *Whereas*, He further perfected his preparation to practice medicine by two more years' post-graduate study in Johns Hopkins University and after that one more year in studies at Harvard Medical Post-Graduate School; and, thereafter, first practiced for two years in Hillsborough Bridge in this county before permanently settling in Merrimack on an estate that has passed down in his family line without ever a deed being recorded—the same property being part of a grant by the newly formed State of New Hampshire to his direct ancestor, Matthew Thornton, after the revolution of 1776,—

And further, *Whereas*, Dr. Greeley, ever since, has served most faithfully a large town and country practice besides aiding in all efforts for the general betterment of his community, so as to be much sought after both as a physician and friendly councilor, and been highly esteemed by his medical colleagues as a wise consultant and faithful friend,—

Now, therefore, let it be *Resolved*, That, by the death of Guy H. Greeley, this society has lost a highly valued member and the people of Merrimack and surrounding towns, an energetic, well-equipped and honorable practitioner of medicine, a gentleman, friend and scholar who admirably combined the acumen of the city physician with the abundant resourcefulness, zeal and reliability of the experienced country doctor;

Be it further *Resolved*, That these resolutions be inscribed upon our permanent records and a copy sent his bereaved family with expressions of sympathy of this membership and that a copy be furnished the press.

HOWARD WILFRED CLEASBY, M.D.

Dr. Howard Wilfred Cleasby of Lancaster died of Vincent's angina at his home July 1, 1926, following an illness of about a week. Probably never before in Lancaster has such an heroic effort been made to save life as that which was given this young physician. For more than ten years he had come close to the hearts of the people in his service and administration in homes and had established a reputation

as one of the ablest surgeons in Northern New Hampshire.

Dr. Cleasby was born in Littleton, N. H., in 1892. His early youth was passed in Waterford, Vermont, where his father died when he was ten years of age. Since then, up to the time of his marriage he made his home with his mother, Mrs. Clara Cleasby. He entered Dartmouth Medical College and graduated in 1913; he was too young to receive a certificate to practice medicine in this state and passed a year in special study in Concord and that year was ever of value to him.

In the following year he came to Lancaster and

HOWARD WILFRED CLEASBY, M.D.

his pleasing personality no less than his skill aided him in early establishing a profitable practice. Dr. Cleasby's practice in Lancaster was interrupted at the outset by the war when he immediately enlisted in the medical corps and was ordered South, where he remained throughout the war doing valuable medical work in various army hospitals. He entered with the rank of Second Lieutenant and was discharged with the rank of Captain. He never lost his interest in the army and its relation to the country. He was a firm believer in preparedness and was himself a Major in the Officers' Reserve Corps and each year had gone into camp to perform his duties as such an officer.

The work of Dr. Cleasby touches many phases of community life. He was Past Commander of the Arthur P. Mahaney Post, A. L. He gave much thought and time to Seascout movement, being an active member of the troop committee, and recently retired from the presidency of the Rotary Club, having served that organization through its first two years.

Dr. Cleasby was a loyal Mason and so well did he merit the honors that he was called upon to serve lodge, chapter and commandery. He belonged to the Coos County Medical Society, the New Hampshire Medical Society, and the American Medical Association.

Dr. Cleasby did not allow the demands of his profession to exclude him from the companionship of others. He was a delightful companion and found in the social activities of the town and in association with others that relaxation that the exacting demands of his profession made necessary.

He was a member of the Board of Trustees of the Colonel Town Community Fund, Public Health Officer and School Medical Examiner.

A few years following his return to Lancaster, in 1920, he married Miss Isabel Marshall, daughter of Mr. and Mrs. Frank Marshall. He leaves a widow and two little children, Carolyn and David Marshall.

MAJOR H. W. CLEASBY

Headquarters 322nd Medical Regiment
Federal Building, Manchester, New Hampshire

General Orders No. 1

The Commanding Officer announces with sorrow the death of Major Howard Wilfred Cleasby, 322nd Medical Regiment, which occurred January 1 at his

home in Lancaster, N. H. Major Cleasby was in his thirty-fourth year and had been ill but a short while with an infection of the throat.

After graduating from Dartmouth Medical School with the degree of M.D. in 1913, Major Cleasby began the practice of medicine in 1914, specializing as a Neuro Psychiatrist.

Major Cleasby entered the military service of his country as a First Lieutenant, Medical Corps, during the World War and went upon active duty as a special Sanitary Officer, Base Hospital, Camp Gordon, Georgia, September 2, 1917. He was promoted to Captain in the Medical Corps on July 13, 1918, and served at Infirmary No. 3, Camp Pike, Arkansas. From August 10 to December 3, 1918, he served as examiner for mental and nervous diseases at the post hospital, Fort Leavenworth, Kansas. From December 12, 1918, to March 19, 1919, he was stationed at General Hospital No. 13, Danville, N. Y., where he was discharged from military service.

He accepted appointment as Captain in the Medical Department of the Officers' Reserve Corps on June 10, 1919, and was assigned to the 322nd Medical Regiment of this division, and assigned to duty with the 365th Hospital Company. Being promoted to Major on February 20, 1924, he later was assigned to command the Ambulance Battalion, 322nd Medical Regiment, which assignment he was holding at the time of his death.

Major Cleasby had attended the 97th Division Training Camps at Camp Devens, Mass., in 1923 and 1924, and was in attendance at the training camp of the 322nd Medical Regiment at Carlisle Barracks, Pa., July 5-19, 1925.

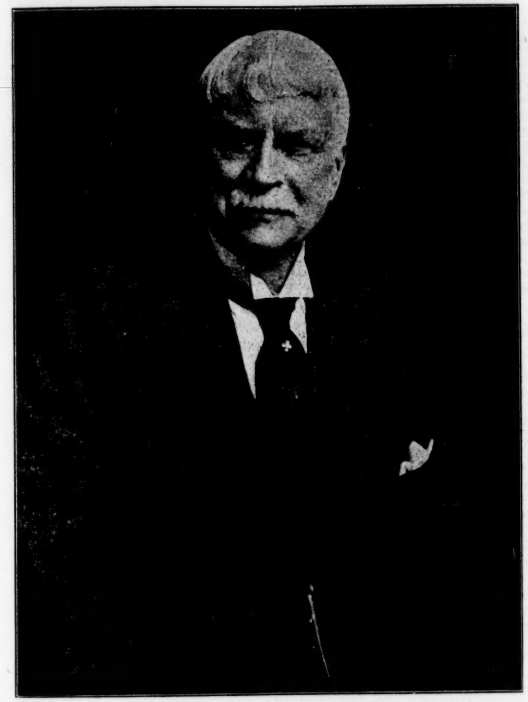
Major Cleasby was a man of strong character and high ability. He possessed a very pleasing personality which never failed to impress those with whom he came in contact. He was greatly interested in the development of the organized reserve project and aided materially in many ways towards the present high standing of this division.

Kindly and considerate in his personal and professional relations, his loss will be deeply felt in his regiment and throughout the division.

By order of the
Regimental Commander

D. W. Cairns,
Major, M.C. (D.O.L.),
Executive.

July 10, 1926.



JOHN DUNCAN QUACKENBOS, M.D.

JOHN DUNCAN QUACKENBOS, M.D.

Dr. John Duncan Quackenbos of 925 West End Avenue, New York City, specialist in mental and nervous diseases and Professor Emeritus of English Literature and Rhetoric at Columbia University, died August 1, 1926, at his summer home on Lake Sunapee, N. H., in his 79th year.

Dr. Quackenbos was born in New York on April 22,

1848, a son of George Payn Quackenbos, author. He was a descendant of Pieter Van Quackenbos, who came from Holland to New Amsterdam about 1660. After attending the Collegiate School of which his father was rector, Dr. Quackenbos graduated from Columbia in 1868. Three years later he graduated from the College of Physicians and Surgeons.

In 1870 Dr. Quackenbos was appointed a tutor of rhetoric at Columbia College. The college made him Adjunct Professor of the English Language and Literature in 1884, and he became Professor of Rhetoric at Columbia University and Barnard College in 1891. Three years later he retired from active service at the university.

Dr. Quackenbos, since retiring as professor, had devoted himself to the practice of medicine, giving his attention exclusively to the psychic treatment of mental and moral abnormality and studying the results attainable by psychic measures in the control of physical disease, the breaking of drug and drink habits and the transformation of character.

He was the author of "Suggestion in Mental and Moral Culture," "Hypnotic Therapeutics," "Body and Spirit," "Magnhild," a psychical novel, and some twenty-five educational works and medical monographs. He was a member of numerous scientific societies, also a member of the Society of Colonial Wars and of the Holland Society of New York.

Dr. Quackenbos married twice. In 1871 he wed Laura A., daughter of Theodore Ward Pinckney of New York. In June, 1916, he married Louise D., daughter of the late Rear Admiral White, U. S. N.

ARTHUR FITTS WHEAT, M.D.

Dr. Arthur Fitts Wheat, of Manchester, died very suddenly of angina pectoris, at his summer home, Hampton Beach, on August 11, 1926, after an illness of only a few days.

Dr. Wheat was born in Manchester, N. H., August 8, 1871, son of Dr. Thomas and Irene Augusta (Hunt) Wheat and grandson of Dr. Nathaniel Wheat.

He received his early education in the public schools of Manchester and graduated from Harvard Medical School in the Class of 1893. His hospital training was obtained in the Carney Hospital of Boston, and later he spent many months in the hospitals of Germany. He was also, at one time, interested in a hospital at Marsovan, Turkey, and was a member of its hospital staff.

For 32 years Dr. Wheat had practiced medicine and surgery in Manchester. He was one of the pioneers in the fresh air treatment of tuberculosis, had always been actively interested in Roentgenology, and in the later years of his life specialized in that as well as in Dietetics and Electrical Therapeutics.

When the United States entered the World War, Dr. Wheat enlisted April 26, 1917, and received his commission as Captain in the Medical Section of the Officers' Reserve Corps of the Army of the United States. July 17, 1917, he was assigned to active duty as Roentgenologist at the Base Hospital, Camp Wheeler. He was commissioned Major in February 18, 1918, and later was assigned to United States Army General Hospital, No. 35, at West Baden, Ind., then to the Base Hospital at Camp Taylor, and finally under Detached Duty from Washington, was made Inspector of X-Ray Laboratories until his discharge at Camp Devens, Mass., June 23, 1919.

Dr. Wheat was a 32nd degree Mason, a Knight Templar and member of Bektash Temple Shrine. He belonged to all the New Hampshire Medical and Surgical Societies, and was also a member of the American Medical Association, Massachusetts Surgical Club, a Fellow of the American College of Surgeons, and New Hampshire Counselor of the Radiological Society of North America. He was on the staff of the Masonic Home and Physician to the Gale Home in Manchester and a Trustee of the Manchester Historic Association.

He married on July 19, 1913, Rachel Flint of Lowell, Mass., and is survived by her and three children, Arthur, Parker and Irene.

SAMUEL RICE UPHAM, M.D.

Claremont suffered a severe loss in the death of Dr. Samuel Rice Upham, October 12, 1926, after an illness of several months. Practically a life-long resident, prominent in affairs, and beloved as physician, he filled a large place in the community and there is wide regret at his untimely death.

Dr. Upham was the on of James P. and Elizabeth Rice Upham, and was born in Claremont Oct. 9, 1861. He attended the local schools and then entered the Military Academy at Granville, N. Y., for his college preparatory work, from which he graduated in 1879. He then entered the medical college of the University of Vermont, and following his graduation matriculated with the College of Physicians and Surgeons in New York, where he studied for three years. He was interne for two years, externe in the out-patient surgical department two years and surgeon three years at the Rhode Island Hospital, Providence, and was in gen ral practice in that city from 1887 to 1892, during which period he was attending physician to the Providence day nursery and also to the Providence Dispensary. In September 1892 he gave up his practice at Providence to return to his old home where he has since resided and followed his profession.

When the state took up its intensive drive against tuberculosis, Dr. Upham was one of the first to enlist in the work and for many years he has been a trustee of the Glencliff Sanitarium. He has served actively in the tuberculosis clinics held here and elsewhere about the state.

During the World War Dr. Upham gave his service to the government in the capacity of examining physician for the draft board in Claremont district.

Dr. Upham was a director of the Peoples National Bank here, a member of the Sullivan County Medical Society, New Hampshire Medical Society, the American Medical Association, the Triton Club of Northern Quebec and American Cancer Association.

He leaves a wife, Mrs. Marguerite Bailey Upham, an adopted daughter, Patricia; two brothers, J. Duncan Upham and George Baxter Upham; and a sister, Mrs. Ruth Brewster Upham, all of Claremont.

—*Claremont Advocate.*

EDMUND EMERSON HILL, M.D.

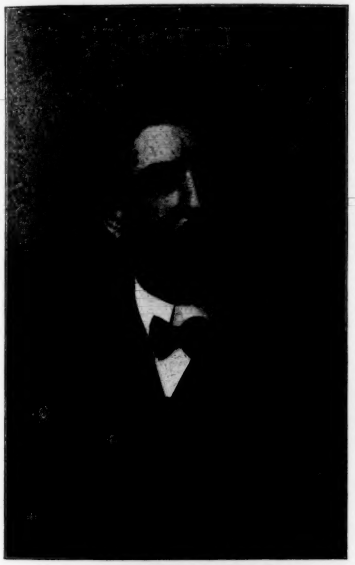
Dr. Edmund Emerson Hill died at his home on Main Street, Suncook, N. H., Sunday afternoon, October 24, 1926. He was born in Candia, October 22, 1868, and received his education at Pembroke Academy and Harvard Medical School, graduating from the latter institution in 1893. He had practiced his profession in Suncook for thirty-three years and was well known in the surrounding towns where he was called in cases of illness. He was a member of the Pembroke School Board for three years, a trustee of Pembroke Academy for many years and had also served as county physician for the town of Pembroke.

He was a member of the Merrimack County and Center District Medical Society, the New Hampshire Medical Society, and the American Medical Association.

In fraternal circles Dr. Hill was especially prominent and will be greatly missed. In Masonry he was a past master of Jewell Lodge A. F. & A. M. and past high priest of Hiram Chapter, Royal Arch Masons of Suncook, a member of Horace Chase Council, R. and S. M., Mount Horeb Commandery,

Knight Templars of Concord, the New Hampshire Consistory of Nashua and Bektash Temple. A. A. O. M. S., the Veteran Masons Association and Order of High Priesthood of Concord, the Eastern Star and a past district deputy grand master Mason in District No. 4. In Odd Fellowship he was affiliated with Howard Lodge, Hildreth Encampment and Mary Gordon Bartlett Rebekah Lodge of Suncook. He was also a member of the United Order of Golden Cross.

Socially, Dr. Hill was ever at his best, being most



EDMUND EMERSON HILL, M.D.

companionable and entertaining and on this account in particular he possessed a wide circle of friends and acquaintances. He was much attached to the home circle, an affectionate and devoted husband and father. He was faithful to every trust imposed, either public or private and a much beloved and respected citizen has passed away.

He was a member of the Pembroke Street Congregational Church.

In 1895 he was united in marriage to Miss Mary Blanche Walker, daughter of Professor and Mrs. Isaac Walker of Pembroke, who survives, together with two sons, Edmund Walker Hill of Goffstown and Frederick Emerson Hill of Suncook.

EDWARD S. SULLIVAN, M.D.

Dr. Edward Scanlan Sullivan of Concord, N. H., died of pneumonia in that city on April 9, 1927, after an illness of only a few days. Born in Concord on January 25, 1892, he was graduated from Phillips Exeter Academy in 1910, from Harvard College in 1914 and from the Harvard Medical School in 1919. He served his internship at the Boston City Hospital as a member of the enlisted Medical Reserve Corps, thereby postponing the receipt of his medical degree for one year. Since 1919, until his untimely death, he has engaged in general practice in Concord, associated with his father, a distinguished New Hampshire physician, who has for many years been secretary of the New Hampshire Medical Society.

Dr. Sullivan was a member of the American Medical Association, the New England Pediatric Society, the New Hampshire Medical Society, the New Hampshire Surgical Club and the Merrimack County Medical Society. In the Harvard Club of New Hampshire and in the Associated Harvard Clubs of New England he took an active part. He had many friends among his fellow members of the Harvard Club of Boston. He belonged to the Wonolancet Club in Concord, to the American Legion and for several years had been a faithful worker on the staff of the Margaret Pillsbury General Hospital. He attended St. John's Roman Catholic Church.

Dr. Sullivan's immediate relatives are his widow, formerly Miss Jessica Brown of Cambridge, to whom he was married on January 20, 1921; his father and mother, Dr. and Mrs. D. E. Sullivan, and his brother, Paul.

Dr. Sullivan's outstanding qualities were his inherent friendliness, his high degree of medical intelligence and his industry. Untiring efforts in his professional tasks were in part responsible for his death; for when his final illness came, resisting little, he passed on, "Calm as a voyager to some distant land". His colleagues respected him and deplore his early death; his patients, for whom he gave his life, loved him.

JOHN WHEELER, M.D.

Dr. John Wheeler of Plymouth died suddenly at his home June 5, 1927. He was born May 16, 1872, in Alton, N. H., the son of Dr. Phineas P. Wheeler and Sarah M. Colby Wheeler. He attended Exeter and Brewster Academies and was graduated from Dartmouth College in the class of 1895, Dartmouth Medical School 1898.

After graduation from the medical school he was on the staff of the Bridgewater State Hospital at Bridgewater, Mass., for one year. In 1899 he settled in Plymouth, N. H., in which town and surrounding towns he practiced medicine ever since.

On June 12, 1907, he married Miss Celia M. Morton, of South Ohio, N. S. He leaves surviving him his wife and three sons, Phineas Wheeler of the class of 1930 at Dartmouth, John, a junior in high School and Morton, age 12, and his sisters, Mrs. W. H. Shedd of Pittsfield, N. H., Miss Annie A. Wheeler of Alton, N. H., and a stepbrother, James R. Coffin of New York City.

Dr. Wheeler was a member of the Psi Upsilon and Sphinx fraternities at Dartmouth, a member of the Olive Branch Lodge of Masons of Plymouth, N. H., and a member of the American Medical Association, the New Hampshire State Medical Society and the Grafton County Medical Society.

NATHAN LEROY GRIFFIN, M.D.

Dr. Nathan Leroy Griffin was born July 12, 1875, at Andover, Mass., where his father was head of the English department of Phillips Andover Academy. He died suddenly of occlusion of the coronary artery at Hartford, Conn., Dec. 23, 1926, while on a vacation trip with his family to South Carolina for the holidays.

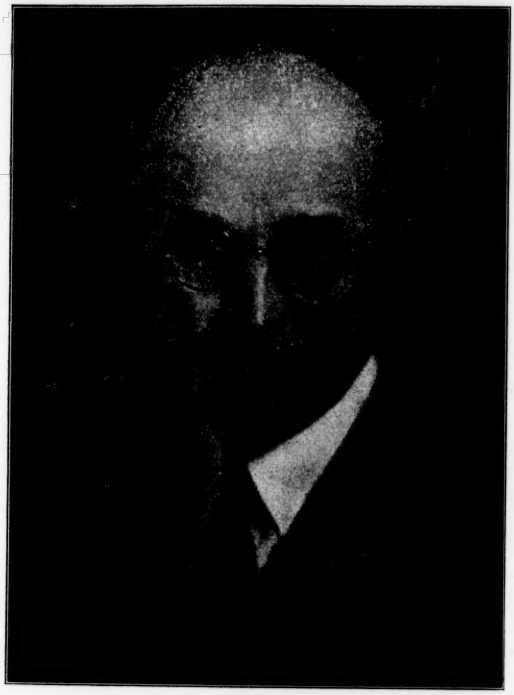
During his youth he attended various schools where his father taught, the longest period being at Lake Forest University, Ill., where his father was professor of physics and astronomy for 11 years. In 1892, the family removed to New London, where Professor Griffin took over the science department at Colby Academy, from which Doctor Griffin graduated in 1896. It was during these years that he learned to love the school and beautiful town with a warmth that deepened with the years. He went to Yale that fall, the first student to enter the college

on a regent's certificate and graduated from Yale Medical School cum laude in 1900, president of his class and of his fraternity, Skull and Sceptre. After a surgical internship in New Haven Hospital he spent seven months in the Far East, taking the opportunity to study medical conditions there. On Feb. 24, 1902, he married Florence Bickford of New London, and to them two daughters were born.

In 1906, Doctor Griffin returned to New London to practice and after that made New London his home. He practiced there until the fall of 1914 when nervously broken, he yielded to the advice of those in the profession to give up winter driving. He spent the two following winters practicing at Altamont Springs, Fla., returning for his summer practice among the Lake Sunapee colony each spring. Having regained his health in some measure, he resumed his year round practice at New London, and after our entry into the war, covered a territory of an hundred square miles, being the only physician within that area. During the influenza epidemic—for 72 hours at one time he left his car only to eat, snatching sleep while being driven from place to place. At this time came the small beginnings which resulted in the present New London Hospital. The hours he spent in planning and working for its beginning under adverse conditions were known only to those nearest him.

This intensive work made such inroads upon his health that after the armistice and the return of the doctors who served so ably,—but with no more patriotism and self-sacrifice—during the war, he was again forced to abandon winter practice in New London, and for four years thereafter was house physician at Florence Villa, Fla., returning to practice in New London each spring. For more than 20 years he was house physician at Soo-Nipi Park Lodge and at the time of his death was official physician at three hotels and five summer camps in the vicinity.

New London and its people were very dear to him and he constantly planned for the time when he could retire from more active practice, and again take a part in the life of the community. This thought often kept him going, when he was at the point of exhaustion. He loved nature, and the unfolding of spring, and the panorama of scenic beauty presented in his driving was a dear delight. The enduring friendships he made among his resort patients both North and South were to him a greater recompense than the fees he received.



NATHAN LEROY GRIFFIN, M.D.

In the fall of 1923 he went to Durham, believing if he were relieved of the long winter drives, he could safely remain in the North. The following year he received his appointment from the University of New Hampshire as staff physician and head of the new Department of Health, which he organized and placed upon an efficient and paying basis. He had great satisfaction when recently informed by the National Student Health Association that his department did more for its students and at less cost

than at any other college in the Association. He gave freely of his strength and during his last term at the University averaged 16 hours a day including Sundays in close application to his work for the student body.

His work was largely along the line of preventive medicine, consisting not only of medical service and a record of full physical examination of the more than 1500 students, but also regular inspection of rooms and buildings, sanitary arrangements and fire hazards, frequent examination of milk and water supplies and inspection of eating places, and the isolation and observation of all exposed to contagion. He was present at every athletic contest, examining each student before participating. He accompanied the football team on its trips. The University having no cut system, all excuses went through his office. He offered a regular course of lectures in First Aid through the Zoology department, which was very popular, and also lectured on hygiene and allied subjects. Through the winter and spring he gave the full physical examinations and immunizations for the R. O. T. C. and accompanied them to training camp.

The welfare of young people provided his great interest in life, and while caring for their health he made their problems his own. He never lost the enthusiasm and fresh viewpoint of youth, and these qualities provided a common ground of understanding with the students. His hold upon them is shown by the following extract from an editorial in *The New Hampshire.*

"A friend in need is a friend indeed." A friend we have all learned to love; one who was always with us; a professional man, but a student at heart; —not a stranger, but one of us. And so we think of Dr. Nathan Griffin whose loss to the University and to the Town of Durham was one of the greatest that has been suffered by students and townspeople for many years. In his office, on a trip with one of the teams, or any place, he was always the same. His smile and cheerful countenance was ever an incentive. . . . He has left a great gap in the life of us all; we knew him and he knew us. He has heard the call and has answered, but he will live forever in our hearts!"

JOSEPH EDMOND LEMAITRE, M.D.

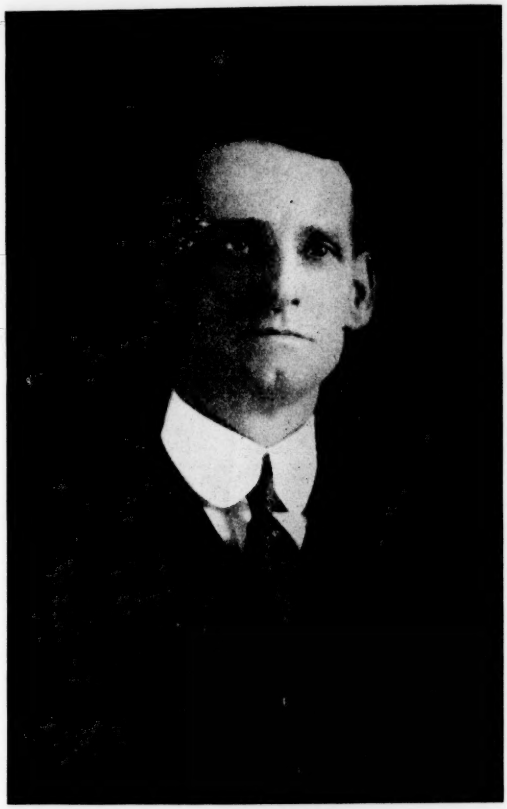
Doctor Griffin was affiliated with the Center District Medical Society of which he had been president; of the Dover Medical Society, the New Hampshire Medical Society, the New Hampshire Surgical Club, the A. M. A., the National Student Health Association, also King Solomon's Lodge, A. F. & A. M.

Through many years' association in private duty, Public Health work and his work at the State University, it is possible to glimpse the fine integrity underlying all he did. Perhaps nowhere more than at the University did this unswerving right-minded-

ness shine forth. The infinite patience of an essential fatherliness characterized his attitude toward the students, and his professional abilities were expended in their service unstintedly. Rounds at the Infirmary, if a patient were seriously ill might be at 6 A. M. or at midnight: time and effort were never a question when a student's well-being was involved. His wide acquaintance among specialists made it possible for him to enlist the sympathetic interest of the finest talent for students who were working their way in the University and unable financially to secure such service otherwise. Many a lad misses his wise fatherly counsel, for it was to a friend, not alone to a doctor that he came.

All his plans for the Health Department looked to the betterment of the student body; every phase of their lives was of interest to him as well as their athletics;—their class schedules and their jobs for vacation, no less than their work in the future. As one boy said "I hate to come in this office now and feel I shan't see Doc Griffin: how I miss his talks we used to have about everything,—you could *talk* to that man!" Yet beyond his friendliness they sensed the iron integrity and knew they couldn't "put it over" on him, though they might be sure of justice—tempered with mercy.

Every nurse who worked with or for him must remember his consideration, his appreciation of every effort on her part in the care of his patients, no less than his wise helpfulness in going over the conditions and treatment of the case, the better to secure intelligent coöperation. And his fine professional courtesy, not alone to his nurses but to his fellow practitioner! In long years of acquaintance with medical men of every degree from Sir William Osler down, I have never known one who held more sacred his Hippocratic oath, or who more nearly fulfilled its spirit.



ELMER E. DEAN, M.D.

JOSEPH EDMOND LEMAITRE, M.D.

Joseph Edmond Lemaitre was born at Pierreville, P. Q., Canada, January 8, 1857, the son of Dr. Joseph Lemaitre and Jessie Gill. He made his studies at Nicolet College, where he received high honors, one

of which was the Prince of Wales prize. He received his degree of doctor of medicine following a course at Laval University, Quebec. After practicing in his native town for a year he came to Manchester where he lived until his death November 22, 1926.

Dr. Lemaitre was one of the founders of Jolliet Club. He was a member of the Manchester Medical association, the local chapter of Elks and the Eagles, the Association Canado American and the Franco-American Foresters.

The medical staff of Sacred Heart Hospital, of which Dr. Lemaitre was a member, adopted the following resolution.

"Whereas God in His infinite wisdom has seen fit to call to his everlasting reward, our brother staff member, Joseph E. Lemaitre, whose conscientious labors since the early days of the hospital have in a great measure been responsible for its present high standing.

"Dr. Lemaitre was an ethical physician, a keen diagnostician and well read in all matters pertaining to medicine. He was a man who gained and held the respect of all with whom he came in contact.

"Be it resolved that in the death of Dr. Lemaitre this staff has lost a loyal and lovable member, the community and state a distinguished citizen, the poor and needy a devoted and fearless friend, and be it further resolved that a copy of these resolutions be spread upon the records of the hospital, the press and a copy forwarded to the family."

WALTER D. MINIGAN,
WALTER A. BARTLETT,
GEORGE T. SHEEHAN,
JAMES J. POWERS.

ELMER E. DEAN, M.D.

At the close of the first day of the New Year, 1927, Dr. E. E. Dean at the Mary Hitchcock Hospital at Hanover came to the end of nearly 40 years service to his fellowmen in the easing of pain, the healing of human ills and strengthening of human hearts. His long service (33 years) in this town, like that of his predecessors, has become so much a part of the everyday life in his wide circle of service that his going will be felt more and more as our daily needs call for the kind that only the family physician can give.

On Wednesday, at the home on School Street, the services for the family were conducted by Rev. Dr. Forkel of White River Jct., Vt. Interment was made in the family lot at Glenwood Cemetery.

Elmer E. Dean was born in New Hampton, N. H., June 15, 1861. His father, Silas F. Dean, was a Baptist minister; his mother, Jennie F. McCollister, a woman of great family wisdom. Dr. Dean's early boyhood was passed in Mt. Holly, Vt., and thereafter he attended Goddard Seminary at Barre, Vt., in the class of 1885, and St. Lawrence University at Canton, N. Y. His study of medicine began with Dr. C. M. Chandler at Montpelier, Vt., and included a course of lectures at the College of Physicians and Surgeons in New York City. In the class of 1888 at the Medical College of the University of Vermont, he received his degree in medicine.

On March third of that year (1888) at Washington, Vt., at the home of the Powers family, the young doctor took for his life helpmate, Florence E. Powers, who with three brothers and two sisters survives him. After six years' service in Tunbridge, Vt., he came to this town. At that time he added to his previous training two courses 1895-6 at the Post Graduate College of Physicians and Surgeons in New York City.

He held membership in the New Hampshire Surgical Club, the New Hampshire Medical Society, the American Medical Association, Franklin Lodge of the Masons, Mascoma Lodge of the Odd Fellows and Major McKinley Camp of the Sons of Veterans.

Besides his widow, Florence E. Dean, two sisters in Ephrata, Wash., Mrs. Minnie F. Pike, Mrs. John B. Sargent; three brothers, Silas W. Dean in Gold Hill, Colorado, Francis W. Dean, Lebanon, and Dexter B. Dean at Etna, N. H., survive him.

WALTER TUTTLE, M.D.

Dr. Walter Tuttle of Exeter, N. H., died at Exeter Hospital August 17, 1927. Dr. Tuttle was born in Lowell, Mass., November 14, 1862, son of Franklin and Elizabeth (Hayes) Tuttle, educated in public schools of Lowell, Mass., receiving his medical degree at the Boston University of Medicine 1885. He practiced in Milford, Mass., until 1888, when he came to Exeter, N. H. August 23, 1888, he married Anna Augusta Woodbury of Milford, Mass., deceased February 3, 1926. He is survived by one son, George Woodbury Tuttle of Buffalo, N. Y. Up to the time of his death he was a very active member of the Rockingham Medical County Society, having held for several years the office of secretary-treasurer. He was also president of the Exeter Hospital staff. In his death Exeter has lost a useful, benevolent citizen and a skillful, conscientious, sympathetic physician.

(Courtesy of Dr. L. R. Hazzard, necrologist, of the Rockingham County Medical Society, and Dr. John G. W. Knowlton, secretary.)

J. LEAVITT CAIN, M.D.

Dr. J. Leavitt Cain of Newport, N. H., one of the best known and most highly respected physicians of the state, passed away September 22, 1927, at the age of 72 years. He had been in failing health for several months but his terminal illness was brief. He was born in Goshen, the son of George Washington and Cynthia Jane (Leavitt) Cain and received his education at Croydon; Kimball Union Academy, Meriden; Dartmouth College, Hanover; and at Bellevue Hospital in New York City. Dr. Cain first practiced in Grantham in 1883, going to Newport in 1887. He is survived by three children, William, John and Cynthia, and one brother, Dr. William Cain of Nashua. Dr. Cain was a member of the medical societies and of many fraternal bodies. He had held many positions of trust and responsibility in his community, occupying a position of unusual esteem and affection and beloved by everyone.

Dr. I. G. Anthoine of Nashua died in October.

MEMBERSHIP CHANGES

Dr. Arthur H. Ward, Hampton, N. H., has removed to Cromwell, Conn.

Dr. Willis D. Walker of Portsmouth, N. H., has removed to Rye Beach, N. H.

Dr. C. H. Sanford of Exeter has recently become a member of the Society.

Dr. Alfred Woodhouse of Bristol has been dropped from membership.

REMOVALS

Dr. Arthur B. Woodman, Wells River, Vermont, has moved to Springfield, Vermont.

Dr. Harry W. Stetson, Orford, New Hampshire, has moved to Milford, Connecticut.

Dr. Franklin S. Temple, Newbury, Vermont, has moved to Raymond, New Hampshire.

Dr. Harold C. Pickwick, Littleton, New Hampshire, has moved to Lisbon, New Hampshire.

Dr. E. P. Lunderville, Berlin, New Hampshire, has moved to Richford, Vermont.

MANCHESTER MEDICAL SOCIETY

The regular meeting of the Manchester Medical Society was held at the Derryfield Club, Manchester, N. H., Tuesday, November 15, beginning at 6 P. M. with a dinner. The subject, Medical Defense, was ably presented by the speaker of the evening, Dr. Thomas Luce of Portsmouth, N. H. He emphasized the necessity of consideration on the part of physicians in meeting this increasingly perplexing problem and advocating the State of Maine plan of Medical Defense as desirable for New Hampshire and for New England. Dr. Luce's address met with hearty approval and the society voted unanimously in favor of coöperation to the fullest extent in an effort to secure the adoption of the State of Maine plan of Medical Defense for New Hampshire.

On the program of the New Hampshire State Medical Society this year the subject of Medical Defense is being given notable prominence. The state president, Dr. Emery Fitch of Claremont, is visiting all the County Medical Societies urging the serious consideration of the State of Maine plan of Medical Defense for New Hampshire. This matter will be acted upon at the annual meeting of the State Society to be held at Manchester, N. H., May 15 and 16, 1928. So far two of the County Medical Societies have considered the subject of Medical Defense, Coos and Rockingham. In both instances the society voted to instruct its delegates to the State Society meeting to support the adoption of the State of Maine plan of Medical Defense for New Hampshire. It is expected that the other counties will act in like manner.

ROCKINGHAM COUNTY SOCIETY

The annual meeting of the Rockingham County Society was held at Rockingham County Hospital, Brentwood, N. H., October 13, 1927, with President Dr. C. M. Colby of Exeter presiding. The following papers were presented: 1—Case report: Fracture of the Skull, Dr. C. M. Colby of Exeter. Following a head injury a child developed a deficiency in the sensation of smell which gradually returned. 2—Paper by Dr. John A. Hunter of Dover, N. H.: Points of Diagnosis in Diseases of the Eye, Ear, Nose, and Throat; discussed by Drs. Souter, Luce and Eastman of Portsmouth. 3—Paper by Dr. V. H. Sikorsky, Plaistow: Ultra Violet Rays in the Treatment of Selected Cases of Hay Fever. While the rays are being generated the patient is instructed to inhale with the nares close to the rays. 4—Treatment of Erysipelas, by Dr. J. H. Tappan of Derry, N. H., with emphasis upon the use of silver nitrate solution painted over the diseased surface. 5—Remarks by Dr. Emery Fitch, President of the New Hampshire State Medical Society, who suggested more frequent meetings of the County Society, greater interest in the business program of the State Society and a serious consideration of the problem of medical defense.

The following officers were elected:

President: W. P. Clare, Portsmouth, N. H.

Vice-President: Fred. Fernald, Nottingham, N. H.

Secretary-Treasurer: John G. Knowlton, Exeter, N. H.

Delegates to State: Drs. Ladd, Hannaford and McLaughlin of Portsmouth, N H..

Censors: Drs. Landmann, Gilbert and Guptill.

Necrologist: Dr. L. R. Hazzard, Portsmouth, N. H.

Dr. Thomas Luce of Portsmouth in behalf of the Portsmouth Medical Society extended an invitation to the County Society to meet in Portsmouth next spring.

COOS COUNTY MEDICAL SOCIETY

The twenty-fifth annual meeting of the Coos County Medical Society was held at Gorham, N. H., October 22, 1927. Lunch was served at the Mt. Madison House to fifty-two members, ladies and guests. Adjourning to the Androscoggin Country Club, the regular meeting was called to order at 2 P. M. by the President, R. E. Wilder, and the following program was presented:

Subject: Organized Medical Defense—Group Liability Insurance.

Problems of the New Hampshire State Medical Society. Discussion: Dr. Emery M. Fitch, Dr. D. E. Sullivan, Dr. J. J. Cobb.

How the Maine Medical Society Has Solved Its Legal and Insurance Problems. Discussion: Dr. Bertram L. Bryant, Dr. David W. Parker, Dr. William H. Leith.

A Layman and Insurance Adjuster's Viewpoint, S. A. T. Spence.

By unanimous vote the Society expressed its approval of the so called "Maine Plan" of medical defense. Following a discussion of the subject of the publication of the transactions of the New Hampshire State Medical Society a resolution was presented by Dr. W. H. Leith and adopted. Resolution: That it is the wish of the Coos County Medical Society that the transactions of the State Society be published in the same manner that has been followed previous to the year 1927 and that a copy of this resolution be presented to the House of Delegates at its next session.

Three new members were elected: Dr. Bruce Kelly, Whitefield, N. H.; Dr. Edgar J. Thibodeau, Berlin, N. H.; Dr. Leander P. Beaudoin, Berlin, N. H.

The new officers elected for the coming year are:

President: H. E. Wilkinson, M.D.

Vice-President: Henry M. Wiggin, M.D.

Secretary-treasurer: Homer H. Marks, M.D.

Censor, two years: R. E. Webb, M.D.

Censor, one year: E. F. Brown, M.D.

Delegates to the State Society: Homer H. Marks, M.D., R. E. Wilder, M.D. Alternates: N. B. Dresser, M.D., J. M. Blodgett, M.D.

Auditor, two years: G. R. Cusson, M. D.

During the transaction of business the Ladies' Auxiliary served a light lunch and tea which was greatly appreciated. The presence of Emery M. Fitch, President of the State Society, D. E. Sullivan Secretary of the State Society, David W. Parker, Past President of the State Society, Henry O. Smith, a prominent physician from the southern part of the State, Bertram L. Bryant, Secretary of the Maine Medical Society, as well as a large attendance of the Ladies' Auxiliary added greatly to the interest of this meeting.

Courtesy of DR. HOMER H. MARKS, *Secretary*.

NEW SANITATION REQUIREMENTS FOR MILK NOW IN EFFECT IN NEW HAMPSHIRE AS PUBLISHED BY THE NEW HAMPSHIRE STATE BOARD OF HEALTH

Under authority of the sanitary food law, the following rules governing the sanitary production and distribution of milk were adopted by the State Board of Health on April 12, 1927, these constituting Regulation 15 under such law.

Two outstanding features, now generally required under our city milk ordinances but not extensively observed as to other milk supplies, are the requirements regarding cooling to 50 degrees and the provision of a suitable room or place for the straining, cooling, mixing and bottling operations. Both of these requirements are essential to the supplying of a pure, clean milk of low bacteria content.

Regulation 15. The following conditions and methods relative to milk production and distribution shall be observed:

(a) Stables and milk rooms shall be constructed so as to provide adequate ventilation, lighting and drainage, shall be kept clean, and milk rooms shall be screened from April 15 to November 1.

(b) The water supply shall be pure.

(c) All containers used in the production and distribution of milk shall, before use, be thoroughly cleansed, using a cleaning preparation, and shall be sterilized with boiling water, live steam, or with the use or aid of such other agency as may be officially approved.

(d) Milk and its containers shall not be exposed to flies, dust or other contaminative conditions.

(e) Manure shall be removed from the stable twice daily and be disposed of so as not to be a means of contamination of the milk.

(f) Cows shall be healthy and maintained in cleanly condition, and no milk shall be sold which is drawn from cows within fifteen days before or five days after parturition.

(g) Udders shall be cleaned before commencing milking.

(h) Milking shall be done with clean, dry hands, preferably into small-topped milking-pails, or with a clean milking-machine.

(i) All persons while engaged in milking or in handling milk shall wear clean, washable outer garments.

(j) Milk shall be removed from the stable to a milk-room immediately after milking, in the pails into which it was drawn, and shall be quickly cooled to 50 degrees Fahrenheit or lower and shall be maintained at such temperature during transportation and pending sale to the consumer.

(k) All rooms in which milk is cooled, strained, mixed, bottled, or stored, shall be kept clean at all times, shall be provided with self-closing screen doors, and shall not be used for sleeping purposes, for the storage of any offensive matter, nor be frequented by cats, dogs or other animals. No water-closet or privy shall be in or in direct communication with such rooms. Adequate facilities shall be provided for washing and sterilizing utensils and containers.

(l) Surface coolers, unless located in a closed room used exclusively for cooling, or for pasteurizing and cooling, shall be protected during use by metal covers.

(m) Caps for bottles shall be purchased in sterilized containers and shall remain protected from contamination.

(n) No person ill with or harboring the organisms of any communicable disease, or caring for or coming in contact with any person having such disease, shall be employed in the production, handling or sale of milk, cream or ice cream. No person exposed to such disease, or in whose family such disease exists, shall be so employed except with the written consent of the Board of Health.

(o) No bottle, can or receptacle used for milk or cream distribution shall be removed from a private house, apartment or tenement wherein a person has a communicable disease until consent has been obtained of the Board of Health.

"INSPECTED MILK" REGULATIONS REVISED

Notice is hereby given that at a meeting of the State Board of Health held April 12, 1927, the following rules and regulations for the production, distribution and sale of so-called "inspected milk" were adopted, to replace rules and regulations therefor as previously in force.

Designation

(1) Because of the incongruity at this time involved by the term "inspected" milk, and because, in actuality, the grade here involved corresponds to what is elsewhere now generally designated as "Grade A," sanction is given to the use of the latter term on the cap when in conjunction with the words "Inspected milk," as required under the statute. The wording used may be as follows: (1) Inspected Milk; or (2) Grade A Milk (Inspected Milk); or (3) Grade A Inspected Milk.

Mislabeling Prohibited

(2) Any use of the words "Inspected Milk," or of any other name signifying special merit, in conjunction with milk not of a quality or produced and distributed under conditions at least the equal of those herein stipulated, or any wording or device on the package which is untruthful or which may tend to deceive or mislead, will be deemed a violation of these regulations, and may constitute a misbranding under the Food and Drug Law.

Initial Approval of the State Board of Health and Regular Inspection Required

(3) While no special license for the production of this milk will be required (additional to the customary local one, which must be held), yet an indispensable condition will be that all milk sold under such a label shall be chemically and bacteriologically examined, and the stable, equipment, etc., inspected, under official auspices, a number of times each year. In every case, as a prerequisite for the initial production, the approval of the State Board of Health shall have been secured, based upon an examination of the premises where said milk is to be produced, and an investigation made of all the circumstances by an accredited representative of the Board.

Standards of Quality and Packaging

(4) "Inspected Milk," "Grade A Inspected Milk," shall be raw milk drawn from officially tuberculin-tested and non-reacting cows; shall, at the time of sale, contain not more than 25,000 bacteria per cubic centimeter and no organisms of the colon group per hundredth cubic centimeter, plate method, and shall contain not less than three and seven-tenths per cent. (3.7%) of butter-fat. Milk of this grade shall be distributed only in bottles as filled at the dairy where it is produced, or at an approved bottling plant. The bottle used for distribution shall have applied to it a sterile hood, or cap, such as to completely cover the lip.

Pasteurization

(5) Provision is made for the production and sale of pasteurized inspected milk as follows:

(a) Inspected milk to be pasteurized shall be subject to all of the requirements for the raw form as herein specified, except that prior to pasteurization such raw milk shall contain not exceeding 50,000 bacteria per cubic centimeter, nor be more than 24 hours old. Pasteurized inspected milk shall be plainly marked with the word PASTEURIZED.

(b) In the process of pasteurization the milk shall be uniformly heated to a temperature of not less than 142 nor more than 147 degrees Fahrenheit for not less than 30 minutes, then cooled immediately to a temperature of 50 degrees Fahrenheit or lower and maintained at that temperature until delivered to the retail purchaser. The temperature and time of heating and the temperature of cooling shall be recorded by an automatic recording device, and a duplicate of such device shall be on hand and in good repair at all times. The charts shall be numbered and dated, shall be retained in a locked case while being recorded, and shall be conveniently filed and preserved for a period of not less than three months, to be available to inspection at all times.

General Sanitary Requirements Governing Production and Distribution

(6) In the production and distribution of Inspected milk the requirements of the regulations as issued under the Sanitary Food Law relative to milk shall be complied with.

THE SEAL SALE IN NEW HAMPSHIRE

New Hampshire is in the front rank among the states of the nation, not only in the effectiveness of its fight against tuberculosis, but in the per capita

amount of funds raised each year through the sale of Christmas Seals.

In 1919 our state led the entire country in the Seal Sale. Since 1920 we have held second place in the per capita of Christmas Seals sold, exceeded only by the wealthy state of New York.

Through the support given by the loyal purchasers of Christmas Seals in New Hampshire we have completely organized the entire state for effective work in the prevention and cure of tuberculosis. From a nucleus of Tuberculosis Clinic and Nursing Service in the Merrimack Valley the work has been extended to every section of New Hampshire comprising Tuberculosis Clinic Centers in 75 cities and towns covering every section of the state with Tuberculosis Nursing Service in every county.

A staff of splendid Tuberculosis Public Health Nurses has been built up making possible a statewide survey for the discovery of early tuberculosis cases and their consequent treatment and recovery.

The number of beds at our sanatoriums has been doubled, making possible the cure of large numbers of our people and protecting thousands more from infection through the care of active infectious cases.

THE YEAR'S WORK

Here is a brief summary of the year's work as conducted by the New Hampshire Tuberculosis Association in 1927 and made possible by the Seal Sale of 1926.

75 Tuberculosis Clinic Centers maintained in operation.

8 New Clinic Centers opened.

285 Clinic Sessions held.

7,592 individuals examined in the clinics and advised.

1,867 New children examined.

897 New adults examined.

295 New cases of tuberculosis found in adults.

175 New infected children found.

5,349 Positive and suspicious cases under the supervision of the Tuberculosis Clinics and Nurses.

21,284 Visits made by Tuberculosis Nurses in case finding, follow up and social service work.

—*Bulletin of the New Hampshire State Board of Health.*

UNITED STATES PUBLIC HEALTH SERVICE

CHRONOLOGICAL LIST OF CHANGES OF DUTIES AND STATIONS OF COMMISSIONED AND OTHER OFFICERS OF THE UNITED STATES PUBLIC HEALTH SERVICE

NOVEMBER 9, 1927

Surgeon L. L. Lumsden. Directed to proceed from Washington, D. C., to Charleston, W. Va., and such other places in the States of West Virginia, Tennessee, Arkansas, Georgia and Alabama, in connection with studies of and demonstrations in rural sanitation. November 2, 1927.

Assistant Surgeon General F. A. Carmelia. Directed to proceed from Washington, D. C., to Marcus Hook, Pa., and return, in connection with administrative matters at that station. November 2, 1927.

Surgeon Joseph Goldberger. Directed to proceed from Washington, D. C., to Milledgeville, Ga., and Memphis, Tenn. and return, in connection with nutrition studies. November 2, 1927.

Senior Surgeon John McMullen. Directed to proceed from New Orleans, La., to Memphis, Tenn. and return, for the purpose of representing the Service at the forthcoming meeting of the Southern Medical Association, November 14-17, 1927. November 3, 1927.

Epidemiologist T. H. D. Griffitts. Directed to proceed from Biloxi, Miss., to Memphis, Tenn. and return, for the purpose of attending the meeting of the Southern Medical Association to be held in that city November 14-17, 1927. November 3, 1927.

P. A. Surgeon M. V. Veldee. Relieved from duty at Washington, D. C., and assigned to duty at Cincinnati, Ohio, in connection with studies relating to stream pollution activities. November 4, 1927.

Surgeon H. E. Trimble. Directed to proceed from Detroit, Mich., to New York, N. Y., for conference at Marine Hospital No. 70. November 5, 1927.

Associate Sanitary Engineer A. P. Miller. Directed to proceed from Washington, D. C., to Montreal, Canada, and such other places in Canada, as may be necessary, for conference with Canadian Health officials, relative to the installation of procedure for the certification of water supplies used by common carriers similar to that of the United States, stopping enroute at New York. November 5, 1927.

Senior Dental Surgeon (R) C. T. Messner. Directed to proceed from Washington, D. C., to New York, N. Y., New London, Conn. and Boston, Mass. and return, to inspect dental activities of the Service in those cities. November 5, 1927.

Acting Assistant Surgeon O. C. Wenger. Directed to proceed from Hot Springs, Ark., to Indianola, Miss., and return, not oftener than once each month during the remainder of the present fiscal year, for the purpose of coöperating with the State Board of Health in connection with venereal disease control. November 5, 1927.

Surgeon C. E. Waller. Directed to proceed from Memphis, Tenn., to Atlanta, Ga., and such other places in the shellfish producing areas, as may be necessary, and return, to Washington, in connection with the sanitation of shellfish producing areas. November 7, 1927.

Surgeon W. H. Frost. Directed to proceed from Baltimore, Md., to New York, N. Y. and return, in connection with the proper sanitary control of shellfish. November 7, 1927.

Surgeon G. C. Lake. Directed to proceed from Stapleton, N. Y., to Washington, D. C. and return, at such time during November as will least interfere with official duties, relative to venereal disease research. November 8, 1927.

Official:

H. S. CUMMING, *Surgeon General.*

NETHERLAND EAST INDIES STUDIES MALARIA CONTROL

Dr. P. J. Van Lonkhuijken, Director General of Health of the Netherland East Indies, is in the United States inspecting methods of public health and disease conrtol employed by the Public Health Service, it was stated orally, November 19, by the Surgeon General, Dr. Hugh S. Cumming, of the Public Health Service.

The East Indian medical officer is particularly interested in malaria control work. This disease is prevalent in the Netherland East Indies, which has a population of approximately 52,000,000.—*U. S. Daily.*

Case Records
of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY R. C. CABOT, M.D.

F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 13481

NECROPSY 5094

SUBMANUBRIAL PAIN LASTING TWO HOURS

MEDICAL DEPARTMENT

A Swiss-American wool spinner fifty years old entered the hospital December 12 complaining of shortness of breath.

Two years before admission he began to have dyspnea on exertion with occasional dull pain across the upper sternum radiating to the left shoulder, the left scapula and down the left arm, always promptly relieved by rest. Two months before admission the symptoms became worse. Five and a half weeks before admission while working in the factory he was seized with severe smothering pain in the lower precordia spreading to the entire left chest. He collapsed and had to be carried away, though without loss of consciousness. The attack lasted two hours. Since that time he had not been able to draw a long breath and had had constant pain in the left chest, varying in degree. "Something in the epigastrium seemed to catch his wind." He was told that albumin was found in his urine. After a week in bed he felt much better. For the two weeks following he rested most of the time in bed. Whenever he lay down he had cough with a little brown ("bloody") sputum. He felt better however when he lay on his right side. He had frequent night sweats. His sleep was disturbed by dyspnea. His appetite became poor and his bowels constipated. He was constantly nauseated and felt loaded, he thought from gas in the epigastrium, but he was unable to belch it. He vomited several times. Two weeks before admission he had another severe attack of pain in the chest and was referred to the Out-Patient Department of this hospital, where an X-ray record made December 8 showed the left diaphragm normal. The right diaphragm was obscured by an area of dullness the upper border of which was well defined and tended to rise in the axilla. There was increase in the lung markings on both sides. The heart shadow was increased in its transverse diameter, the most noticeable enlargement being in the region of the left ventricle. The temperature was 95.2°. He was recommended for admission to the wards. For two weeks he had felt distinctly worse and for two days had eaten practically nothing. The night before admission he was again seized with pain somewhat relieved by nitroglycerin. In five weeks he had lost about five pounds.

His past general health had been good. He had malaria fourteen years before admission. He had influenza during an epidemic. For ten years he had had difficulty in starting urination. Seven years before admission he was held up by three men and severely beaten in the front of the chest, so that he was in bed for a week. He had four attacks of gonorrhea six years before admission, resulting in stricture which had to be treated four years ago. Six years before admission he had a fracture of the right shoulder due to an automobile accident. For six years he had had occasional touches of "lumbago." Three years before admission, after a fall against a chair, his left side had to be strapped for three weeks. For two years his finger tips had been cold and numb on slight exposure. He occasionally had spots and "veils" before his eyes. His usual weight was 126 pounds, his weight in the Out-Patient Department 121.

He drank some alcohol every week-end, and once in two or three months was intoxicated. Six weeks before admission he was intoxicated from four different kinds of liquor.

His father committed suicide. His mother died at seventy-three from a "paralytic shock." One brother and one sister died of heart disease. Another brother died of coronary thrombosis ("acute indigestion").

Clinical examination showed a fairly well developed, poorly nourished man in considerable respiratory distress, orthopneic. The skin and mucous membranes were pale. The teeth were ill-kept and carious. The gums showed marked pyorrhea. There was marked funnel breast deformity with barrel chest superimposed. The lungs were hyperresonant. There was dullness to flatness at the right base rising higher in the axilla, with distant breath and voice sounds and absent tactile fremitus. There was a slight area of dullness low in the left axilla. Coarse crackling râles were heard throughout both lungs. The apex impulse of the heart was in the fifth space 11.5 centimeters from midsternum, corresponding with the left border of dullness. The supracardiac dullness was 6 (?) centimeters and the right border 4 (?). (The measurements were inaccurate because of the chest deformity.) The aortic second sound was accentuated. There was a third sound at the apex, over the lower end of the sternum and at the base. There was an aortic systolic murmur. A faint to-and-fro (?) friction sound was heard at the apex. There was protodiastolic gallop. Peripheral sclerosis was marked. The blood pressure was 180/130 to 190/105 to 172/110. An electrocardiogram showed sinoauricular tachycardia, rate 120, left axis deviation, intraventricular block. The liver was three fingerbreadths below the costal margin,

slightly tender. The rest of the examination was negative.

The amount of urine is not recorded. Urine cloudy at both of two examinations, specific gravity 1.027 to 1.024, a slight trace to the slightest possible trace of albumin at both, ferric chloride and sodium nitroprussic acid tests strongly positive twice, 0-3 pus cells per high power field at one sediment examination. Renal function 15 per cent. The blood showed 17,500 to 28,000 leucocytes, 95 to 88 per cent. polynuclears, hemoglobin 75 per cent., reds 4,752,000, platelets increased at the second examination, otherwise smears normal. Wassermann negative. Non-protein nitrogen 32 milligrams. Sputum (Smith stain) : a moderate number of leucocytes, numerous Gram-positive diplococci and Gram-negative short bacilli.

The temperature was 98° to 102.5°, the pulse 82 to 120, the respiration 19 to 30.

When the patient was first seen in the Emergency Ward he was very dyspneic. Both lungs were full of bubbling râles. Three hours later he was breathing much more easily and had only a few râles at the bases. He grew progressively weaker and more dyspneic, complaining of pain over the precordia and December 14 of pain in the lower right chest. The fever and leucocytosis rose. The râles at the bases persisted, but there were no more râles in the upper chest after admission. December 14 he died.

Discussion

BY RICHARD C. CABOT, M.D.

NOTES ON THE HISTORY

The first sentence in the present illness describes what we ordinarily call angina pectoris. But the second attack is too long to call angina pectoris. In view of there being previous angina it makes you wonder whether there is a cardiac infarction, which can last two hours perfectly well and which is a fairly natural sort of diagnosis.

This X-ray we see here is not a seven foot plate, so that whether the heart is enlarged or whether it is exaggerated by the divergence of the rays I can not say. Before reading the X-ray conclusions I should suppose it is an enlarged heart, fluid in the right base, and no other definite pathology.

I do not get much from the past history. The first paragraph gives us the important data and seems to be most characterized by attacks of pain, first of the short type, and then much longer, certainly corresponding very well with cardiac infarction. This, the enlarged heart and the fluid at the right base are the most definite data we have. The other symptoms seem to be secondary to that.

"Another brother died of coronary thrombosis ('acute indigestion')." I should like to know just what that was. The record says it was "acute indigestion" apparently. Acute indigestion is often the diagnosis when the patient does die of coronary thrombosis, but I should doubt whether they had evidence from the patient's own story sufficient for any such diagnosis as that.

NOTES ON THE PHYSICAL EXAMINATION

The lung findings correspond with what the X-ray showed us.

To-and-fro pericardial friction is quite common in cases of cardiac infarction. They found it in rather an unusual place and they do not seem perfectly sure that it was there.

The blood pressures are obviously high.

The electrocardiogram shows a big left ventricle.

"Ferric chloride and sodium nitroprussic acid tests strongly positive twice." I suppose he had been vomiting. I do not see any evidence of disease of the kidney. I expect it to be normal.

That leucocyte count would go very well with a pericarditis, if there was one on top of the cardiac infarction.

He was in the hospital only two days, so that we have not much opportunity to observe his temperature, but it certainly was elevated.

DIFFERENTIAL DIAGNOSIS

I do not know any better diagnosis to make than the one that came into my mind at the very beginning of the case, cardiac infarction with pericarditis. It is possible that he has a pneumonia, but there is no evidence of it.

He ought to have a big heart, probably arteriosclerosis, passive congestion of the lungs, and no lesion of the valves. If I am right in the diagnosis of infarct, there is probably more than one. There are possibly patches of myocarditis corresponding to previous infarcts, and of course there ought to be a coronary lesion to correspond, but there is no reason to suppose that this is primary embolism of the coronary from some other source, but rather a sclerotic blocking of the coronary.

A Student: What would be the immediate cause of death if he did not have bronchopneumonia?

Dr. Cabot: Cardiac infarction, with pericarditis.

A Student: How about the fluid in the right chest?

Dr. Cabot: I suppose that is hydrothorax from passive congestion.

A Student: Is that not a long period for pericarditis?

Dr. Cabot: Yes. We do not suppose that it has lasted so long. It might have come before the other.

A Student: Is there a hereditary background there?

Dr. Cabot: I think there is. It seems to me that there is a hereditary feature in coronary disease. It is generally agreed that arterio-

sclerosis in general does run in families, and I think it often shows itself in coronary disease.

A STUDENT: Are you basing the diagnosis of pericarditis on the fact that he has a fever?

DR. CABOT: No, I am basing it on the fact that it often does occur in the condition that I have discussed, on the to-and-fro rub, the leucocytosis and the fever. It seems to me that is a very decent bet. I should not want to stake my eternal salvation on it.

CARDIOLOGICAL CONSULTATION DECEMBER 14

The history of angina pectoris, attack of "acute indigestion" with collapse six weeks ago, gallop rhythm with muffled heart sounds, congestive failure, abnormal electrocardiogram, persistence of heart pain and pallor and leucocytosis indicate the probability of coronary thrombosis occurring six weeks ago with persistence of signs and symptoms of infarction. The pain on breathing and the lung signs may now mean a complicating pulmonary infarction. Prognosis bad. Digitalis, caffein, morphia.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Hypertensive heart disease.
Coronary thrombosis.
Myocardial insufficiency.

DR. RICHARD C. CABOT'S DIAGNOSIS

Sclerotic blocking of the coronary.
Cardiac infarction with pericarditis.
Arteriosclerosis.
Hypertrophy and dilatation of the heart.
Passive congestion of the lungs.
Hydrothorax.
Possibly pneumonia.

ANATOMIC DIAGNOSES

Infarct of the heart with rupture.
Arteriosclerosis of the coronary arteries.
Occlusion of the descending branch of the right coronary.
Hematoma of the pericardium, organized.

DR. TRACY B. MALLORY: The interesting feature of course is the heart. You can see how the left ventricle wall here for two-thirds is hypertrophied, averaging two centimeters in thickness. Then suddenly at this point it diminishes to half a centimeter, loses its muscular character and becomes fibrous. Inside the ventricle here is a large adherent thrombus. When we opened the pericardium there was a small amount of fresh blood in it. There were loose adhesions between the pericardium and the epicardium, and then covering the entire lateral border of the heart was a very large partially but not completely organized hematoma. Microscopic examination of portions of the infarcted area show that the process is of considerable age, that is, a matter of weeks. Almost all of the muscle cells have disappeared, leaving only a loose connective tissue. Granulation tissue is growing into the hematoma and has organized it to a considerable degree.

There is marked sclerosis of the coronaries, particularly of the right, and at one point a definite thrombus obliterating the lumen.

The pleural cavities both contained fluid, the right about 1500 cubic centimeters, the left about a liter of perfectly clear straw colored fluid. There was no evidence of pleurisy.

The arteriosclerosis was quite surprisingly limited to the coronary arteries. There was very little in the aorta for a man of fifty years, certainly no more, perhaps less, than the average.

The kidneys were essentially negative. Microscopic examination showed an occasional sclerosed glomerulus, nothing more.

The lungs were negative. They were very atelectatic on account of the large amount of fluid present on each side.

DR. CABOT: There was no infection, was there?

DR. MALLORY: Nothing that we made out, Dr. Cabot.

DR. CABOT: We have had a number of cases here with nothing to account for a leucocytosis and fever except infarcts such as were present here. I think that is what we have to say in this case.

CASE 13482

PERSISTENT VOMITING — WHEN SHOULD THE SURGEON BE CALLED?

SURGICAL DEPARTMENT

A widowed Irishwoman sixty-seven years old, a practical nurse, came to the Emergency Ward August 17 complaining of vomiting and abdominal pain.

Five days before admission she began to have upper abdominal pain and very severe attacks of vomiting. Her bowels, which had previously been very regular, had moved only once since the onset. The vomiting had continued and had become stercoraceous. She had been unable to keep down any food. The pain was more severe and was generalized over the abdomen.

The family history and past history were not obtained.

Clinical examination showed a well nourished woman lying in bed, nauseated and in considerable distress from abdominal pain. Teeth all false. Heart and lungs normal. Blood pressure 140/80. Abdomen distended, with tenderness throughout. Spasm was not marked. Because of distention it was practically impossible to palpate any organs. Peristalsis could not be seen. A few gurgling sounds could be heard over the left side of the abdomen. Pelvic examination showed no evidence of malignancy. Extremities, pupils and reflexes normal.

Urine and blood not recorded. Non-protein

nitrogen 97 milligrams. Blood chlorides 406.6 milligrams.

Before operation temperature 100° by rectum to 98.2° by mouth, pulse 120 to 103, respirations 29.

August 18 operation was done. The next day there was some distention. The pulse was good, the rate 100. August 19 she was very ill. The pulse was 130. The blood chlorides were 400. In the afternoon it was decided to operate again. On the way to the amphitheater the patient became moribund. She was returned to the ward, where she died in a few minutes.

Discussion

BY WILLIAM MARTINDALE SHEDDEN, M.D.

This rather short Emergency Ward history suggests several possibilities. With the story of constipation suddenly coming on, plus vomiting which continues and becomes stercoraceous, the most likely diagnosis is of course acute intestinal obstruction. We must also think of peritonitis, but against it is the fact, as we shall see later, that she had no temperature.

Mesenteric thrombosis is another possibility. The onset of mesenteric thrombosis is generally sudden and the course is generally very rapid. It would be rather unusual to have a woman come in five days after the beginning of mesenteric thrombosis. She would not have lived so long.

Acute appendicitis must always be considered. Against that diagnosis of course is lack of temperature, which does not however rule it out, for we see a number of old people with acute appendicitis and a normal temperature, and also very often with no leucocytosis. But against it is also the fact that at the end of five days the pain is not localized. It stays a vague upper abdominal pain. Of course we could have an acute appendix in the right upper quadrant, but in this case it stayed vaguely in the upper abdomen and without temperature.

Acute pancreatitis is to be considered. That again is usually characterized by sudden onset and usually has a very rapid course.

I want to emphasize here that if acute intestinal obstruction is suspected, catharsis is decidedly not indicated. A case on the edge may be thus pushed into obstruction. Enemata can be given of course, and any supportive measures, or anything that will tend to relax spasm, such as heat to the abdomen, etc. If this is a case of obstruction, the fact that the pain was upper abdominal suggests perhaps the small intestine is the seat of the trouble.

That the past history was not obtained is of some interest to us, for if she had an intestinal obstruction we should like very much to know if she has had any hints of it previously.

In this case—if we are considering this as one of obstruction—we have to think of the possible causes of such an obstruction. They fall rather easily into four groups: (1) The apparent acute obstruction which is in reality a paralytic ileus due to toxemia of some sort. (2) The obvious herniae, inguinal, femoral, umbilical, or what not. (3) Intra-abdominal obstruction; and here of course there is immediate subdivision under many heads, such as intrinsic obstruction from growths (carcinoma, sarcoma, polyps, angiomata), from foreign bodies, or from intussusception, and extrinsic forces, as some tumor or mass pressing on the intestine from outside. We do not have to consider intussusception very seriously, as that is usually a calamity occurring in childhood. Roughly one-half to two-thirds of the cases I believe occur short of the first year. Of course however intussusception can occur at this age. A tumor of the intestine may be the point at which an intussusception begins. Among the foreign bodies of various sorts are gall-stones in the intestine and fecaliths, and by the way, a good many so-called fecaliths are gall-stones. (4) The fourth group would be the post-operative acute intestinal obstructions, and there is the group where we could with more care undoubtedly reduce the mortality.

Dr. Edward Richardson reviewed the acute intestinal obstructions during the ten-year period prior to 1918 and also reviewed Dr. Scudder's paper on the same subject which carries the study back ten years further. He found that the mortality was reduced slightly during the second ten-year period, and most prominently in the last group mentioned,—the post-operative. It rarely does any harm under local anesthesia or ethylene to explore in case of doubt, and every hour of delay increases the danger. Therefore if acute intestinal obstruction is suspected, explore rather than wait and take a chance, if the patient's condition will permit it.

This history does not say that she was particularly prostrated. Her blood pressure was 140/80, which would not indicate marked prostration. The prostration progresses in proportion to the amount of strangulation or obstruction.

Distention plus the symptoms above leads us still more towards the diagnosis of intestinal obstruction.

Tenderness throughout of course is seen in the other diseases mentioned, namely peritonitis, mesenteric thrombosis, and acute pancreatitis. "Spasm not marked" is of course against acute peritonitis.

The man who examined the patient had in mind her age and was looking for a cause for obstruction that he could feel through the abdominal wall, such as malignancy. Malignancy of course is a very good bet as a cause for intestinal obstruction in a woman of this age, and of course the most common place for it to be would be in the descending colon, particularly the sigmoid.

In the textbooks visible peristalsis is mentioned very frequently as a sign of acute intesti-

nal obstruction. It is not a common sign, and if a man waits for that most of his patients are going to die.

"Gurgling sounds could be heard over the left side of the abdomen." It was thought therefore that the obstruction was possibly in the sigmoid.

"Pelvic examination showed no evidence of malignancy." Therefore it is higher, presumably, than the rectosigmoid, or we should be able to feel it.

It is perfectly possible for this woman to have had a carcinoma and to have had the symptoms appear only in the last few days, so that the short duration of symptoms is not necessarily against the diagnosis of cancer.

In looking over a large number of records of carcinoma of the rectum and sigmoid I have been struck by the fact that blood in the stools is one of the most prominent symptoms. The symptom given in the textbooks of alternating constipation and diarrhea is not seen in more than a small percentage of the cases. Constipation yes, but alternation of the two, no.

It would have been very interesting to know whether she had a leucocytosis. Cases of mesenteric thrombosis occasionally show a very high leucocytosis. 90,000 has been recorded.

The non-protein nitrogen is high. That I interpret as being an evidence of dehydration. She has vomited for five days. In that connection Dr. Richardson, whose paper I mentioned a few minutes ago, found that of the cases of acute intestinal obstruction which recovered the average duration of symptoms was two and six-tenths days, of those who died four and six-tenths days.

Blood chloride of 406.6 means 406.6 milligrams of sodium chloride per 100 cubic centimeters of blood plasma. I mention the blood chloride here because Dr. James White and Dr. E. M. Bridge of this hospital have been doing some work with animals with intestinal obstruction* and have been making records of the blood chloride of human beings in acute intestinal obstruction, and they have found that directly in proportion to the loss of fluid by mouth there is loss of chloride in the tissues. The question of the blood chloride in obstruction is interesting and may eventually suggest some therapy even beyond an attempt to replace the chloride in the tissue. The normal blood chloride is 580 to 640 milligrams per cubic centimeter of blood plasma.

Drs. White and Bridge have made the further observation on animals and human beings that if the blood chloride gets down to this level, about 400, they never recover. This woman was given 50 grams of sodium chloride in the form of normal saline, and was unable to utilize it.

*J. C. White and E. M. Bridge, Loss of chloride and water from tissues and blood in high intestinal obstruction. Boston Medical and Surgical Journal, June 2, 1927, page 893.

PRE-OPERATIVE DIAGNOSIS

Intestinal obstruction.

OPERATION

Novocain and ethylene. Right rectus muscle splitting incision. Several loops of dilated gut presented on opening the abdomen. These led into the right lower quadrant, where collapsed gut was found. Between the collapsed and the dilated gut there was a gall-stone about 4 centimeters in diameter. An incision was made over this and the stone removed. The gut was sutured in two layers. An ileostomy was done just above this point.

Cholesterin gall-stone taken from the intestine. The fractured surfaces show the radiating crystalline structure. Natural size. Photograph by Edward U. Gleason.

PATHOLOGICAL REPORT

A gall-stone the size of an English walnut and of a yellow-brown color. The fractured surface shows a radiating crystalline structure. (See illustration.)

Pure cholesterin gall-stone.

ADDITIONAL NOTES FROM HISTORY

August 18 there was very little material from the ileostomy tube. August 19 the ileostomy was not functioning. Irrigation was done through the ileostomy tube. The irrigation fluid returned, but no gas or fecal material.

FURTHER DISCUSSION

Ether apparently has a definite tendency to increase paralysis of the gut, therefore novocain and ethylene were used.

This was not an exploratory incision. They evidently felt that the patient was in such bad shape that they were going only to relieve the obstruction and close the wound as soon as pos-

sible. They were intending probably to do a cecostomy. An appendicostomy is entirely useless unless the appendix has a very large lumen.

Do you know, Dr. Mallory, if most of these gall-stone enteroliths are cholesterin?

DR. TRACY B. MALLORY: Most of the big ones are.

DR. SHEDDEN: She was operated upon very early in the morning. An immense amount of brownish material poured out through the tube that morning. That afternoon it began to decrease. The suggestion here is that she was not reobstructed, but that the gut was not capable of picking up again its function.

There are a few interesting figures regarding gall-stone ileus. Martin reviewed some 500,000 cases (of intestinal obstruction) in England, and found only sixteen of gall-stone obstruction. The mortality is very high, ranging from fifty-eight to one hundred per cent. in different clinics. In Dr. Richardson's paper reviewing intestinal obstruction for twenty years at this hospital there were two cases, both of which died. The reasons they die are, first that they are old debilitated women, secondly they have no localizing signs and the doctor who sees them temporizes. They become increasingly drained of chlorides and they die, as in this case, although relieved of the obstruction. Just what part the chlorides play remains to be seen. It is undoubtedly a very prominent part.

A PHYSICIAN: If you had had her earlier could she have been saved?

DR. SHEDDEN: We possibly could have saved her. Dr. Edward L. Young told me of a case similar to this who had been vomiting only two days and was saved. If we always keep gall-stone ileus in mind with acute obstruction we probably shall never see a case. But the lesson to be learned from this history is that a patient who vomits and keeps on vomiting, and has colicky pain, should have the benefit of exploratory incision under local anesthesia or ethylene if feasible.

DR. HOLMES: Did she have an X-ray of her abdomen? That stone probably would not have shown anyway.

DR. SHEDDEN: I suppose it might if it had enough calcium in it.

Another interesting question is how that gall-stone got into the ileum. Most of them go through a cholecystoduodenal fistula, a few through a fistula between the gall-bladder and the stomach, some between the gall-bladder and the jejunum, and in one case reported, between the gall-bladder and the colon. As to how big a stone can go through the common duct, Courvoisier says a stone as large as a hazelnut. There have been records of cases much larger than that. If it comes down through the duct we should expect a cramping pain in the right abdomen and jaundice, neither of which this woman had in her past history. She denied, after the operation, having had any attacks in the past suggesting cholelithiasis. And by the way, it is a striking thing that in the past histories of these cases we practically never get any history of gall-bladder trouble. Moller reviewed twenty-two cases of gall-stone ileus and in none of them got any history of previous gall-stone attacks.

DIAGNOSIS

Acute intestinal obstruction from impaction of gall-stone.

IS MENTAL DISEASE ON THE INCREASE?

In a recent discussion of the community importance of mental disease a prominent public health official was astounded by the fact that in the United States mental disease requires almost as many beds as do all the physical diseases put together. Still greater was his surprise when informed that in Massachusetts the hospitals for mental disease have under care and treatment almost five patients for every thousand persons residing in this State. The question arose, Is mental disease on the increase?

This question cannot be answered directly. To do this would require the taking of a census every few years not only of the mentally sick in the hospitals and clinics but those afflicted in the community. This is not practicable for the present at least. The best one can do is to go for one's facts to hospital reports and government censuses.

Careful study of this evidence does *not* suggest that mental disease is on the increase. That there are a greater number of mentally ill under care and treatment than formerly is true, but that this increase is due to other factors than actual increase of mental disease in the general population is equally true.

What are the most important of these factors?

First, added facilities for diagnosis and treatment, improved hospital administration and medical care; second, a growing tendency to care in State hospitals for mild types of mental disorders; third, a more co-operative and understanding public; fourth, a diminishing tendency to commit to or hold in jail insane criminals; fifth, the increasing disinclination to admit to almshouses mentally diseased paupers; and sixth, the greater number of organized social service agencies and the improved ability of social workers to detect mental disease among clients.

It is difficult to say which of these factors are the most important. There is no question, however, but that the modern conception that State hospitals for the insane should be more than custodial institutions, should actually attempt to treat insanity as a medical problem, has resulted in stimulating a favorable reaction on the part of the general public to increased confidence in these institutions. This in turn has resulted in an increase of admissions without there actually being an increase in the extent of mental disease in the community. How great a part the mental hygiene movement has played in bringing about this more favorable attitude of the public toward our State hospitals we are not prepared to state, but that it has played an important role no one will deny.

While we believe that mental disease is not on the increase, we still continue to strive for the prevention of some part, at least, of the great bulk of mental disease still prevalent. Mental disease is a most important public health problem: it is first in magnitude when compared to other forms of disease; it is greatest in cost to governments, demanding more from public budgets than all other forms of disease; and its relation to many social problems is fundamental. Therefore mental disease, though not in our opinion on the increase, still merits our continued interest not only for more adequate facilities for care and treatment, but for prevention.—*Bulletin of the Massachusetts Society for Mental Hygiene.*

THE BOSTON
Medical and Surgical Journal

Established in 1828

Published by The Massachusetts Medical Society under the jurisdiction of the following-named committee:

For three years JOHN W. BARTOL, M.D.
FREDERICK T. LORD, M.D.
CHANNING FROTHINGHAM, M.D.

For two years HOMER GAGE, M.D., *Chairman*
EDWARD C. STREETER, M.D.
EDWARD W. TAYLOR, M.D.

For one year WILLIAM H. ROBEY, JR., M.D.
ROGER I. LEE, M.D.
ROBERT B. OSGOOD, M.D.

EDITORIAL STAFF

DAVID L. EDSALL, M.D.
REID HUNT, M.D.
FRANCIS W. PEABODY, M.D.*
JOHN P. SUTHERLAND, M.D.
GEORGE R. MINOT, M.D.
FRANK H. LAHEY, M.D.
STEPHEN RUSHMORE, M.D.
HANS ZINSSER, M.D.
BENJAMIN WHITE, PH.D.
HENRY R. VIETS, M.D.
ROBERT N. NYE, M.D.
SHIELDS WARREN, M.D.

*Deceased.

WALTER P. BOWERS, M.D., *Managing Editor*

ASSOCIATE EDITORS

GEORGE G. SMITH, M.D.
WILLIAM B. BREED, M.D.
JOSEPH GARLAND, M.D.

SUBSCRIPTION TERMS: *$6.00 per year in advance, postage paid for the United States, $7.56 per year for all foreign countries belonging to the Postal Union.*

Material for early publication should be received not later than noon on Saturday. Orders for reprints must be sent to the Journal office, 126 Massachusetts Ave.

The Journal does not hold itself responsible for statements made by any contributor.

Communications should be addressed to The Boston Medical and Surgical Journal, 126 Massachusetts Ave., Boston, Mass.

THE COST OF MEDICAL CARE

A GENERATION ago when people lived more generally in houses rather than in kitchenette apartments there was always room available for a sick room, and practically every family could depend on that useful individual, the maiden aunt, or else a helpful neighbor, for nursing care in time of emergency. The doctor of those days took care of everything from fractures to cancer. Consultations and specialists were virtually unknown. Just as luxury has become a necessity in sickness, the cost of illness goes steadily upward.

Last spring there was formed in Washington a committee on the cost of medical care, to determine the availability of medical service and its costs. Dr. Louis I. Dublin states that sixty to eighty dollars a year is spent on the average by each family for medical attendance. This is a heavy drain on the average family and represents a serious depletion of our national wealth. How much may be accomplished by preventive medicine is yet uncertain, in any case, there are sound economic grounds for its development as rapidly as possible. According to the estimates of Dr. C. C. Pierce of the United States Public Health Service, more than one third of all sickness is entirely unattended, and here cost is represented only by loss of production.

This is an era of mounting expense in every direction and there is but little hope of reducing that of caring for the sick. If anything, the average physician is inadequately paid when the length and cost of his education and the incessant demands on his time are considered. Only by cutting down the frequency and severity of disease, and better organization of medical care can the problem be met, and these are extremely difficult. The discrepancy between the fees of the medical practitioner and the specialist are too great and the training of many so-called specialists inadequate to permit them to give full value in exchange for the fees which they receive. The costs of hospital and nursing care is virtually prohibitive for families of moderate means, and a chronic illness all too often proves to be an economic, as well as a physical, tragedy. The well-stocked patent medicine shelves of the drug stores are a grim reminder of the popularity and cost of self-medication. The multiplication of free dispensaries and outpatient departments will not meet the problem. It is merely the shifting of the burden from the individual to the community, and many take advantage of free treatment there who are not honestly entitled to it.

What permanent results we may expect from the investigation of this committee on the cost of medical care are problematical. However, they will be of definite value if they only go so far as to show how the cost of illness is distributed among the physicians, nurses, hospitals, drug stores, quacks, and patent medicine houses; and as to where there is opportunity for avoiding duplication of effort, and advancing preventive measures rather than depending solely on therapeusis.

HICCUPPING INFANTS

AN interesting exposition of the physiology of hiccups among infants,—the bugbear of inexperienced mothers,—has been made by Walter R. Pendleton, S.B., and recently published in the American Journal of Diseases of Children (34: 207, August, 1927). According to these observations infants may start to hiccup shortly following regurgitation after nursing, and it was assumed that the irritation from gastric contents lying in a sensitive esophagus might cause this disturbance. Although regurgitation was noted in only eighteen out of fifty-one attacks of hiccups studied, it was further assumed that fluids might pass into the esophagus without leaving the mouth and so without being noticed.

This hypothesis puts on a rational basis the giving of water to stop the hiccups, the theory being that sufficient water, quickly swallowed, will free the esophagus of its irritating con-

tents. Accordingly a normal group of hiccupping infants was selected and warm water was given by bottle to stop the hiccups, nipples with large holes permitting a free flow of water proving most satisfactory. The treatment proved effective, as did the use of supplementary feeding mixtures. A control series was observed in which hiccupping infants were permitted to suck nipples on empty bottles. Only two out of nine stopped hiccupping with this procedure, adding further confirmation to the original hypothesis.

THIS WEEK'S ISSUE

CONTAINS articles by the following named authors:

STOLL, HENRY F. M. D. Columbia University College of Physicians and Surgeons 1902, Visiting Physician at the Hartford Hospital. His subject is: "Mistakes We Make in the Diagnosis and Treatment of Pulmonary Tuberculosis." Page 1017. Address: 179 Allyn St., Hartford, Conn.

DAYTON, NEIL A. M.D. Ohio State University 1915, Director of the Division of Mental Deficiency, State Department of Mental Diseases, Member of the American Psychiatric Association, New England Society of Psychiatry, Massachusetts Society of Psychiatry and the American Association for Study of Feeble-Minded. His subject is: "Newer Functions of Our State Schools for the Mentally Deficient." Page 1024. Address: Dept. of Mental Diseases, State House, Boston.

PAVLO, SAMUEL G. M.D. Tufts College Medical School 1911, Assistant Surgeon of the Urological Department at the Boston Dispensary, Urologist at the Dispensary for Women, Formerly Surgeon at the Malden Hospital and Assistant in Guyon's Clinic, Paris, France. His subject is: "Reflex Anuria." Page 1026. Address: 491 Commonwealth Ave., Boston.

MUDD, SEELEY G. B.S., M.D. (See page 940, issue of November 17, for further information.) Address: 1206 Pacific Mutual Bldg., Los Angeles, Calif., and

SPRAGUE, HOWARD B. A.B., M.D. (See page 940, issue of November 17, for further information.) Address: 270 Commonwealth Ave., Boston. Concluding "Cardio-Vascular Review for 1926." Page 1030.

The Massachusetts Medical Society

ANNUAL DIRECTORY OF 1928

The Directory of the Officers and Fellows of the Society for January 1, 1928, is now in preparation. Fellows who have not already done so will confer a favor by sending recent changes of address to the Secretary, at 182 Walnut St., Brookline, at once.

WALTER L. BURRAGE, *Secretary.*

SECTION OF OBSTETRICS AND GYNECOLOGY

Foster S. Kellogg, M.D., *Chairman* — Frederick L. Good, M.D., *Secretary*

Frederick J. Lynch, M.D., *Clerk*

What Are the Advantages and Disadvantages of Rectal Examinations During Labor?

The aim of all obstetric procedures should be to minimize infection, thereby morbidity and mortality.

What may the rectal examination accomplish in this regard? There are many advantages to this form of examination—

1st. It is a well known fact that if a woman is not examined vaginally no bacteria from the outside world can be carried into her birth canal. This point alone strongly recommends the examination through the rectum.

2nd. Since the examination may be made without contaminating the birth canal, the progress of labor may be followed more closely, as one may do a greater number of rectal examinations than one would do vaginal examinations.

3rd. It is usually possible, by this method, to follow easily the dilatation of the cervix.

4th. It is the ideal method of examining the so-called borderline case during a trial labor. If, after this trial labor, the presenting part does not engage readily and the accoucheur decides on a cesarean section, it is obvious that the possibility of infection will be lessened because no examinations have been made through the birth canal. It is generally conceded that each vaginal examination increases the danger of cesarean section.

5th. By this method it is possible to find what the presenting part is, its station in the pelvis and its advancement or descent during contractions. It may not be possible to accurately find the variety of the presenting part, but the necessary information in this regard may be gained by careful abdominal palpation.

6th. The simplicity of the rectal examination recommends it. It is of especial advantage where a pelvic examination becomes necessary in a parturient, delivered in her home, the facilities for asepsis not being ideal. The progress of labor in such a patient may be followed, and delivery accomplished without a single vaginal examination, thus minimizing the danger of infection.

What Are the Disadvantages?

1st. The greatest disadvantage seems to lie in the fact that when the presenting part is high in the pelvis and not fixed against the cervix, and when the cervix is directed posteriorly, it may be very hard to reach the os, and it may also be difficult to ascertain the amount of dilatation; but even under these circumstances,

which may exist in a small percentage of cases, a vaginal examination can always be made. If it is not possible to conduct the labor entirely by rectal examinations, the vaginal examinations in such cases may at least be limited.

2nd. It has been stated that by the use of the rectal examination the vaginal wall is invaginated in the cervix and thereby vaginal bacteria may be introduced in the os. In practice this disadvantage does not seem to hold true and it is felt that there is very much less danger of infection by introducing bacteria at the rim of the cervix than there is by carrying such bacteria directly into the cervix, as one may in doing a vaginal examination.

Points in Technique

A rectal examination may be made with the patient in the dorsal or lateral position, as the attendant may prefer. When introducing the examining finger through the anus the physician should not allow the thumb of his examining hand to come in contact with the vulva, thus avoiding contamination. The gloves used in rectal examinations should not be mixed with those that may be used for the delivery, but should be kept in a separate container. After they are used, the gloves should be thoroughly cleaned, sterilized, dried and powdered. The clean glove may then be used again (without boiling) for a rectal examination.

MISCELLANY

THE ANNUAL CONFERENCE OF THE SECRETARIES OF THE STATE MEDICAL SOCIETIES

(*Continued from page 1008*)

The subject of "Annual Meetings of State Medical Societies" was opened by Dr. Holman Taylor, Secretary of the Texas State Medical Society and Editor of the *Texas State Journal of Medicine*. He felt that essays, discussions and clinics should be planned with great care and that as sometimes arranged each may fail to accomplish the object of the meeting which is to impart instruction which may be adapted to the needs of members and of a quality suitable for assimilation. He was particularly emphatic in suggesting that programs should be arranged so that there should be a continuity of subjects from year to year which plan would give in detail the essential information of such matters as may be of the greatest value to the members. He felt that the commercial and scientific exhibits should be so arranged that those in attendance should have to pass by them before going to the literary exercises. In this way there would be less confusion and interference in the other sessions.

Dr. Taylor's paper will be published and the arguments will be available for the Committees of other Societies who will find valuable recommendations as to details.

Other speakers paid especial attention to the qualities of exhibits some contending that only those firms which advertise in the State Journals should be privileged to make exhibits and all agreed that the exhibits should be confined to ethical products.

There was a consensus of opinion that scientific exhibits have an educational value which must be recognized.

Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association*, reported his experiences in visiting State Society meetings. While he found much that was commendable he had observed many undesirable features. Calling attention to conflicting Society exercises, he cited as an example one meeting adjacent to a golf course which resulted in a larger attendance on the golf links than at the literary exercises of the Society. He stated that the machine of some Societies is prone to become too mechanical which condition develops a lack of interest in the executive departments. The fact that a machine is too well oiled may leave little opportunity for the exercise of individual effort so that when public matters are considered there is little opportunity for the expression of individual opinion. Dr. Fishbein recommends that the profession should pay attention to the wishes of the public for information regarding the activities of medical Societies. He suggested securing the coöperation of the press for the business of making reports so that newspapers may become a vehicle to carry information concerning medical matters to the public. Dr. Fishbein believes that the press is usually ready to coöperate with the profession but that it is necessary to maintain a more or less constant contact in order to encourage this spirit.

His remarks were as usual very entertaining and contained many specific and interesting suggestions.

Dr. Puckner, who is in charge of the Council of Pharmacy and Chemistry, gave an interesting account of the functions of this Bureau in the examination of medicinal substances, and assured the delegates that reliable information is available for all who are interested in knowing the facts relating to the value of the claims made by manufacturers. He felt that State Societies could be relieved of an uncertainty with respect to the quality of advertised drugs by following the advice of the Bureau. It has happened at times that unethical preparations have been given space at State Society meetings.

The discussions gradually become broader than was contemplated by the reader of the paper and very many matters of general interest were touched upon. One speaker felt that in some State Societies the President is given too much power in the appointment of Committees and that better representation could be secured by leaving this function to the Council or House of Delegates.

The so-called model constitution and by-laws for State Societies prepared by a Committee of the House of Delegates of the American Medical Association was discussed by Dr. Olin West with the recommendation that, aside from some minor changes which local conditions may require, general adoption of this recommendation would be advantageous because of uniformity of procedure among the states. Under present conditions in some states, the parent Society has little control over County Societies and complications with respect to membership are not properly handled. Even if this draft is not adopted it was suggested that proposed changes in the constitution and by-laws of any State Society might be submitted to the Committee of the American Medical Association for consideration and advice.

Dr. Heckel, Chairman of the Board of Trustees of the American Medical Association, explained some of the functions of this body and assured the delegates that the work is planned for the best interests of all concerned and that the Board considers itself to be the creature of the organization not the overruling power. He advised attendance at meetings when scientific subjects were discussed rather than dependence on reading the papers when such appear in print, because much more definite information is acquired by listening to a speaker and the discussions.

Dr. Reik, Editor of the *Journal of the Medical*

Society of New Jersey, read a paper under the title of "The Free Clinic" consideration being centered about three basic questions: First, the free clinics in hospital out-patient departments; second, the clinics conducted by Public Health Bodies; and third, those carried on by Voluntary organizations. While he acknowledged that some abuses exist, he felt that the responsibility lies with the medical profession and that a general spirit of tolerance is in order because of the good accomplished by the different clinics. So far as hospital free clinics are concerned, the importance of teaching material furnished by the patients is so great that unwise interference with the present customs might seriously handicap medical education. General and animated discussions followed the presentation of this subject. The paper was a model literary production, well thought out and the arguments were well received. The subject is of much importance and the paper should be read by the medical profession, public health workers and those engaged in medical education.

One pleasant feature of the meeting was the cordial welcome to Dr. Frank Billings who has been an important factor in the affairs of the American Medical Association for many years.

Dr. McCormack proved to be a model presiding officer both in keeping sustained interest in the subjects under discussion and the interpolation of opinions and suggestions. He is a master at repartee and frequently exchanged verbal shots with his personal friends.

The official report of the meeting, which will be published by the American Medical Association, will convey useful information to all who are interested in affairs pertaining to the medical profession.

The meeting was interesting and successful due to the combined excellence of the papers and the abundant hospitality of the American Medical Association.

RESUME OF COMMUNICABLE DISEASES IN MASSACHUSETTS

OCTOBER, 1927

GENERAL PREVALENCE

Except for acute anterior poliomyelitis, disease prevalence in October was not unusual.

More cases of poliomyelitis were reported in October, 1927, than in any October since 1916. The incidence ran more than nine times as high as the expected number for October. The incidence of chickenpox was moderately high.

Measles has returned to normal incidence from its low rate during the winter. The reporting of diphtheria, influenza, German measles, scarlet fever, lobar pneumonia, tuberculosis, mumps and whooping cough was within the endemic limits.

Fewer cases of typhoid fever were reported in October, 1927, than in any previous October in the history of the Department.

One case of smallpox was reported, the first in 18 months. This case was imported from Spain by way of Rhode Island.

RARE DISEASES

Anterior poliomyelitis was reported from Amesbury, 3; Amherst, 6; Andover, 2; Arlington, 3; Attleboro, 2; Belchertown, 1; Belmont, 1; Beverly, 2; Boston, 87; Brockton, 3; Brookline, 8; Cambridge, 20; Canton, 1; Carver, 1; Chelmsford, 3; Chelsea, 9; Chicopee, 2; Danvers, 1; Dedham, 5; Dunstable, 1; Essex, 1; Everett, 2; Fall River, 5; Franklin, 1; Gardner, 1; Gloucester, 5; Greenfield, 1; Groton, 2; Hanover, 1; Hanson, 6; Haverhill, 31; Holyoke, 1; Hopedale, 1; Hull, 1; Ipswich, 20; Kingston, 1; Lakeville, 1; Lawrence, 4; Leicester, 1; Lowell, 3; Ludlow, 1; Lynn, 11; Malden, 3; Manchester, 1; Medford, 7; Medway, 1; Melrose, 2; Merrimack, 5; Methuen, 1; Middleboro, 2; Milford, 2; Milton, 1; Natick, 1; New Bedford, 4; Newbury, 1; Newton, 4; North Adams, 2; Norwood, 3; Oak Bluffs, 3; Peabody, 1; Pittsfield, 1; Plainville, 1; Quincy, 3; Revere, 8; Rockland, 1; Rowley, 1; Salem, 6; Salisbury, 2; Saugus, 2; Somerville, 13; Springfield, 3; Stoneham, 1; Sutton, 1; Topsfield, 1; Wakefield, 1; Walpole, 1; Waltham, 6; Wareham, 2; Watertown, 1; Wayland, 1; Wellesley, 1; Wenham, 1; Westport, 2; Weymouth, 5; Whitman, 1; Winchendon, 2; Winthrop, 1; Woburn, 1; Worcester, 9; Wrentham, 2; total, 377.

Actinomycosis was reported from Boston, 1; total, 1.

Dog-bite requiring anti-rabic treatment was reported from Boston, 5; Chelmsford, 2; Danvers, 1; Everett, 2; Holyoke, 4; Lincoln, 1; Lowell, 11; Mansfield, 1; Medford, 2; Peabody, 3; Revere, 2; Salem, 3; Somerville, 1; Watertown, 1; total, 39.

MONTHLY REPORT OF CERTAIN COMMUNICABLE DISEASES

Disease	Cases in entire population: Oct., 1927	Oct., 1926	Prosodemic index	Epidemic index	Case rates per 100,000 population: Oct., 1927	Oct., 1926	Expected rate‡
All causes	4,558	3,736	—	—	106.8	88.7	—
Anterior poliomyelitis	377	27	40*	9.4†	8.8	.6	.9
Diphtheria	432	291	572*	.7†	10.1	6.9	13.4
Measles	526	120	530*	1.0†	12.3	2.8	12.4
Pneumonia, lobar	220	201	215*	1.0†	5.2	4.8	5.0
Scarlet fever	728	729	667*	1.0†	17.1	17.3	15.6
Tuberculosis, pulmonary	390	394	304*	1.2†	9.1	9.4	7.1
Typhoid fever	48	86	58*	.8†	1.1	2.0	1.4
Whooping cough	341	322	466*	.7†	7.9	7.6	10.9
Chickenpox	412	420	—	—	9.6	9.9	—
German measles	24	33	—	—	.6	.8	—
Influenza	33	38	—	—	.8	.9	—
Mumps	181	269	—	—	4.2	6.4	—
Tuberculosis, other forms	60	69	—	—	1.4	1.6	—

*This Index is an attempt to estimate the number of cases based on the trend during the past years which can be expected to occur, and is for the purpose of comparison with the number of cases which actually did occur.

†This ratio expresses how prevalent the disease is compared with the index mentioned above; 1.0 indicates that the actual number of cases equals the expected number. A larger number means a greater prevalence, and a smaller number a lesser prevalence than expected. Thus, 2.0 would indicate twice the expected number of cases, and .5 half the expected number of cases. The method used to determine the indices is described in the August 18, 1927, issue of the JOURNAL.

‡Calculated from the Prosodemic Index.

Encephalitis lethargica was reported from Arlington, 1; Boston, 1; Everett, 1; Somerville, 1; Swampscott, 1; total, 5.

Epidemic cerebrospinal meningitis was reported from Attleboro, 1; Boston, 1; Cambridge, 1; Fairhaven, 1; total, 4.

Malaria was reported from Boston, 1; total, 1.

Pellagra was reported from Boston, 2; total, 2.

Rabies was reported from Stoughton, 1; total, 1.

Septic sore throat was reported from Boston, 1; Salisbury, 1; total, 2.

Tetanus was reported from Boston, 2; Greenfield, 1; Haverhill, 1; total, 4.

NEW BLOOD TEST FOR CANCER REPORTED BY GERMAN DOCTOR

The presence of cancer in the human body can be ascertained in a few minutes from a drop of blood extracted from an earlobe by a new method tested at the Ringold chemical laboratory.

The discoverer, Dr. Simonis, says the method discloses the disease even in its earliest stages before swellings, ulcers or pains appear. Numerous tests made were entirely successful, it is stated.

Dr. Simonis says he believes the discovery will make cures possible in many cases, as a positive diagnosis, he asserts, can be made before the malady gains headway. Details of the discovery are a secret as yet, but will be published soon.—*The New York Times.*

EDITORIAL COMMENT:—We have tried to get from Dr. Simonis a statement of his education and positions occupied in order to have some basis for an opinion regarding the value of his claim. No word has been received from him to date.

OBITUARY

GENERAL LEONARD WOOD

AT our request Dr. Brackett consented to write the obituary of General Leonard Wood. This request was reasonable because Dr. Brackett knew the General quite as well and perhaps better than most of those who had been privileged to know this eminent public servant in his early life, and who kept in touch with him throughout his subsequent career.

The medical profession has been justly proud of the accomplishments of this man whose early studies and training had no small part in preparing him for the many phases of a busy and honorable service to this country and its dependencies.

His success as an administrator should lead men trained in medicine to realize that the opportunity to enter upon broader fields of human endeavors are not closed to those who may have vision, ambition and energy.

Dr. Brackett's analysis of Dr. Wood's character and tribute to his ability will be read with profit.

General Leonard Wood has left an unusual record of an aim accomplished, and in a way that has commanded the respect and admiration of his critics, as well as of his supporters—for Wood, like all men who have had a life of accomplishment, had met opposition. Although the main work of his life was removed from those professional paths which he had at first planned for himself, and for a time had actually trod, the influence of this early training and experience left its trace upon his later development, and its mark upon the more important work of his later life.

The characteristics which played an important part in his career, evident in his early life, became even more clearly defined and pronounced, as they responded to the demands for decisive and quick action, and stood up under the weight of responsibility which came with public life. That persistence in any endeavor which he undertook, that clear vision of the end to be attained, that direct method of attack,—all these traits made for accomplishment; while the intensity of his interest stood for an "added dimension of emotion," and made success sure.

In the early days, there was more of force than of tact, but later this quality developed to an unusual degree, keeping pace with his sympathy and understanding for those with whom he worked. We find these qualities carrying him through the different phases of his career, many of them difficult, and it was, perhaps, his intensity of purpose, his absorption in a chosen task, which early marked him as one who, in a trying crisis, could keep his feelings hidden; could relegate them to the background, not letting them intrude; could eliminate the personal equation—not allowing it to influence his official action. This was most noticeable in that incident in his career, when he was about to embark for over-seas, with the Division which he had organized and trained, and about which incident much has been written, but not too much said, concerning his conduct in that difficult moment.

His entrance into the Army was one of those happenings in a young man's life, unexpected, sudden, and at the time, apparently of little importance,—even when there was some question as to the wisdom of such a choice. It was, in a way, a mutual understanding with a friend, an act of comradeship, springing up from a kind instinct to stand by, so often seen in a man of strength in the lesser as well as the larger things. It was definitely characteristic of him to do more than to say, to respond to the wish of a friend, to take the examination for the Army, with little thought of the result; but upon the success of this examination, he immediately accepted a commission in the medical department of the Army, with the intention of following this career only for a brief period, or at least but to give it a trial. His decision proved to be a wise one, and led to that field of activity from which he entered into that larger life of public service, for which he was fitted.

It was in the early years of his public service that the opportunity came to him to use his power of quick decision, with his courage to take a risk. Sometimes what must seem to the outsider an unwise risk is, in realiy, a decision based upon the realization of the power to accomplish. Because of the serious injury to the Commanding General of that region, it was decided by the Medical Staff in attendance that it was necessary to sacrifice the foot. The General refused to accept this decision, and demanded that the next Post Surgeon be sent for; in this case, it happened to be the then Lieutenant Wood. He saw a chance to avoid this loss, and stood alone in the attempt to prevent this disfiguration,—for, while recognizing the odds against recovery, he, at the same time, realized the seriousness of what such a disfiguration would mean to an officer of this rank, and especially to one who was next in turn for the senior position in the Army. The result proved the wisdom of his decision and courage, and he always regarded this incident as a pivotal point in his career.

The service on the plains was comparatively brief, but full of experiences which seasoned his powers, and soon after the campaign into the "Bad Lands" with General Lawton and after the famous Geronimo, Wood was detailed to service in Washington, and it can be truthfully said that then and there began his career in public life.

Opportunities which have been thought by some to have been a matter of chance, were, in fact, a control of circumstances. Sitting one evening in the Hospital yard in Santiago, we were discussing the happenings which had led, step by step, to his position as Governor of that part of Cuba. He told of how many times he had observed, particularly in Washington, the failure of men in the ranks above him to make good, when opportunities came to them, either because they did not accept the tasks when they came, or because they were not fitted to assume them. He then remarked that he had noticed that such opportunities never came back again, and that the careers of these men remained on a level; therefore, he had determined to so fit himself for whatever work might come, that he should be well prepared for any service—thus setting himself a task of general preparedness for any opportunity which might present itself. He was constantly studying and reading, and told me that he had particularly studied the biographies of successful men in public life and in high command. Realizing that through contact comes the broadest development and also the opportunity for an understanding sympathy, he set himself the task of enlarging his acquaintance, among men of different types and different nationalities,—an opportunity which Washington offered to an official in a public and diplomatic life.

With General Wood, there was always some action in prospect, as when Colonel Roosevelt and he were planning an Arctic Relief Expedition, the outbreak of the Spanish-American War called him in another direction. It was then, in a new capacity in the Army, that his military administrative ability surprised his friends, and it was in his work in Santiago, that his early medical training became an asset. The task there, from a standpoint of sanitation and hygiene, was a colossal one. Few who did not have the opportunity of seeing the conditions to be remedied at that time, are able to understand the kind and extent of the problem, or to appreciate the success to which it was carried under his direction. But the problem of dealing with natives, suspicious after many years of oppression and abuse, and of a temperament and tradition so dissimilar, and even opposed to General Wood's New England tradition and training, furnished every opportunity for a conflict, in which one would ordinarily have resorted to force. But it was here that a sympathy with the opposite point of view, brought out that degree of tact which had not before been so evident.

It is not generally known that the position of Governor of this part of the Island had been offered to two other officers, who did not make good; and, in view of the fact of the success of Wood's administration, it would seem as if the Fates were dealing the cards. The reconditioning of Santiago and of the whole province involved revolutionary methods, and the necessity of establishing a regime hitherto unknown to the people, even by tradition. To uproot old-established customs, particularly by a victor power in control, would naturally meet with prejudice and excite opposition; but so just was the firm hand in control, that soon active coöperation was gained, and gratitude instead of opposition was the end result, for these people were able to see values, even in just punishment. This ability to so successfully carry out a firm revolutionary policy, to control a race totally different in temperament and tradition from his own, was a greater accomplishment, even than the rehabilitation of the Island.

With all this duress, the gentle side would constantly appear. Often the authority was tempered with touches of kindness, at which times the act itself was official, but not the character of its administration. It was necessary, as an official act, to evacuate the prisons, but it was not officially necessary to deliberately give time and consideration to the victims of long incarceration, who passed again out into the world and out of sight. Added to the justice which was unfailingly tempered by the human touch, there was always the attitude, in the absence of real proof of guilt, to allow the benefit of doubt to be

thrown to the side of the unfortunate one.

It seemed as if public life came upon him not through his own seeking, or even his choice, but rather because of the fact that the problems which he had the capacity to solve gravitated to him, and so came under his administration. The civil and military duties mingled themselves in a particularly intimate way, and often in his experience, it was only by an equal attention to both, that either could have been administered with success. His was the task of directing, from a military position, the civil affairs which appear for administration—a difficult accomplishment. A sound sense of values, a sympathy with an alien people was necessary, and it can be truly said that both of these qualities were innate in him. Many times his position was primarily and essentially military, which would naturally carry with it the use of force and authority, as well as the tendency toward intolerance which is so frequently found in the military man of higher rank.

One should not, in writing of General Wood, forget one of the most important accomplishments in his career—the part that he played in establishing the Military Training Camps in our pre-war period. His clear foresight and firm conviction served us well, for although the need of these Camps was pressing, and all arguments would seem to have supported the demand, yet he met with strong opposition,—but opposition against a sure conviction is often a stimulus to such men, and the success of this movement justified his action at this time. To be able to find sufficient satisfaction simply in the development of his plan, and in the way it met the emergency, is evidence of his ability to submerge the personal, in the effort to attain success for the public good, and carried him unruffled through those disappointments, which are sure to come to men prominent and active in public affairs.

Parallel with his success in his public service, we can remember his success with himself in those moments which were sufficiently trying to tax even the steadiest of men. Undoubtedly, as he said, he did "feel the power behind those rugged hills" which encircled the city where lay his first great task.

E. G. Brackett, M.D.

CORRESPONDENCE

METCHNIKOFF "CHEZ LUI"

Mr. Editor:

The following anecdote of Metchnikoff is from Dawbarn's sketch, in "Makers of New France" (1915).

"Metchnikoff is amusingly democratic. He talks to everybody in the omnibus or tram, and generally succeeds in convincing them that they are ill. 'But never mind' he says cheerfully, 'I will give you the address of a doctor friend of mine, he will soon put you right.' And young Medicus, a struggling protégé of the great man's, is pleased presently by the arrival of new patients."

"Another of the great man's little ways is to purchase his own food. It is a solemn and serious process. He visits the barrows of the market women and buys with great care, lettuce for his salad, vegetables for a plate of soup, and fruit for his dessert. Carrots, parsnips, potatoes, are passed in review, it would seem as if a religious rite were in preparation. He gives a little good advice to the old lady who attends the stall. 'You should wash your lettuce in hot water,' he tells her, to her amazement—she who has found the gutter so much more practical! 'And you should never let any one touch your wares,' he continues."

"'Qu'est-ce que c'est ce vieux maniaque là?' asks the *marchande de quatre saisons*, as her customer departs. Some one informs her, 'C'est le professeur Metchnikoff.' 'Connais pas,' she retorts, and turns to talk with her friend, the policeman."

Very truly yours,

Wm. Pearce Coues, M.D.

November 16, 1927.

NEWS ITEMS

APPOINTMENT OF DR. PHANEUF AS PROFESSOR OF GYNECOLOGY, TUFTS COLLEGE MEDICAL SCHOOL—At a recent meeting of the Board of Trustees of Tufts College Dr. Louis Eusebe Phaneuf was elected Professor of Gynecology.

Dr. Phaneuf graduated from Tufts College Medical School in June, 1913. He received his training in obstetrics and gynecology at the Carney Hospital, the New York Lying-in Hospital, and the Free Hospital for Women, Brookline.

At the present time he is a member of the Gynecological and Obstetrical Staff of the Carney Hospital, and is Consulting Gynecologist at the Leonard Morse Hospital, Natick.

Dr. Phaneuf is a member of the American College of Surgeons, the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, the American Medical Association, Massachusetts Medical Society, Obstetrical Society of Boston, Alumni Association of the New York Lying-in Hospital, Corresponding Member of the Société d'Obstétrique et de Gynécologie de Paris, and Honorary Member of the Société Belge de Gynécologie et d'Obstétrique.

DR. FRANCIS P. EMERSON of Boston will address the Section of Otology of the New York Academy of Medicine on the evening of Friday, December 9. His subject is "Some Mooted Questions in Sound Conduction and Perception."

A GIFT TO HARVARD—William A. Purrington, who recently died in New York, has made Harvard a beneficiary to the amount of $150,000. This is given with the provision that it shall be used "for research work in the field of medicine with especial reference to the application of medical knowledge to the special department of dentistry."

COOLIDGE AWARDED HUGHES MEDAL—Dr. W. D. Coolidge, assistant director of the research laboratory of the General Electric Company, has been awarded the Hughes medal by the Royal Society for "distinguished work on X-rays and the development of highly efficient apparatus for their production."

The Hughes medal was first presented in 1913 to Dr. Alexander Graham Bell. Dr. Irving Langmuir, also of the General Electric research laboratory, received it in 1918.

CANCER CAMPAIGN—Newspapers of the country are planning to play a leading role in a two weeks' anti-cancer campaign which was started at the New York Academy of Medicine, November 22, 1927.

This campaign will be conducted through authoritative bulletins distributed to the press by the American Society for the Control of Cancer.

Dr. Kendall Emerson of Worcester was among the speakers at this meeting.

A HEALTH WEEK FOR NEGROES—Professor R. R. Moton of Tuskegee Institute has conferred with officials of the United States Public Health Service with reference to the observance of "National Negro Health Week" from April 1-8, 1928.

Acting Surgeon General Pierce promised coöperation in every way and arrangements will be made to supply appropriate literature for distribution.

VIOLATION OF THE FEDERAL NARCOTIC LAW —The number of convictions for violation of the narcotic laws has caused more persons to be sent to Federal penal institutions than the violation of any other one law in the statute book.

The number convicted and sentenced for this offense up to June 30, 1927, is 2,116.

The next largest number, 2,040, is for violation of the prohibition act.

REPORTS AND NOTICES OF MEETINGS

THE SUFFOLK DISTRICT MEDICAL SOCIETY

Dr. Donald C. Balfour of the Mayo Clinic, Rochester, Minnesota, was the speaker at a meeting of the Surgical Section of the Suffolk District Medical Society held on Wednesday evening, November sixteenth, at the Boston Medical Library. Dr. Balfour's subject was "Stomach Surgery," and was illustrated with lantern slides demonstrating the technique of the various types of operation on the stomach. The text of Dr. Balfour's paper will be published later in the JOURNAL.

The discussion was opened by Dr. Daniel F. Jones and Dr. Frank H. Lahey of Boston.

There was a capacity attendance of over three hundred.

JOE V. MEIGS, *Chairman*,
EDWARD B. BENEDICT, *Secretary*,
Surgical Section, Suffolk District Medical Society.

MEETING OF THE ESSEX SOUTH DISTRICT SOCIETY

The Essex South District Medical Society held its regular meeting and dinner at the Salem Hospital on Wednesday, November 9, at 5 P. M. The following clinical program was presented:

Dr. Curtis: Colles Fracture with Demonstration of Cases.

Dr. H. Phippen: Two Unusual Cases of Intestinal Obstruction.

Dr. W. G. Phippen: Two Cases of Difficult Diagnosis.

Dr. Donaldson: 1, Myelogenous Leukemia; 2, Lymphatic Leukemia with Demonstration of Cases; Discussion by Dr. A. N. Sargent.

Dr. Gardner: An Unusual Case of Diabetes.

Dinner at seven was followed by a Symposium on Infantile Paralysis.

Dr. Eliot H. Luther spoke on "Poliomyelitis, the Laboratory point of View, and the recent epidemic."

Dr. Arthur Legg on "The Harvard Commission and Orthopedic point of view."

Dr. Phillip Sylvester, "The Point of View of the Pediatrician, with Special Reference to Rest, Lumbar Puncture and Serum."

Discussion by Drs. A. N. Sargent and H. C. Bean of Salem.

General discussion from the floor.

Attendance ninety-three. Adjourned 10:30 P. M.

WILLIAM T. HOPKINS, *Reporter*.

NORTH SHORE MEDICAL FRATERNITY

Dr. Louis Wolfe addressed the North Shore Medical Fraternity at their October meeting on "Heart Pain."

Dr. Louis Ullian addressed the North Shore Medical Fraternity at their November meeting on "Hypothyroidism."

At the November meeting, the following were elected officers for the ensuing term:

President, Dr. Saul Marcus of Peabody; Vice-President, Dr. Morris Kreplick, Lynn; Secretary, Dr. Ellis Michelson, Lynn; Treasurer, Dr. Max Lesses, Salem.

MASSACHUSETTS PSYCHIATRIC SOCIETY

The next regular meeting of the Massachusetts Psychiatric Society will be held at the Boston Psychopathic Hospital, 74 Fenwood Road, on Friday, December 9, 1927, at 8 P. M.

The speaker of the evening will be Dr. Adolf Meyer of Baltimore, Professor of Psychiatry at Johns Hopkins University and President of the American Psychiatric Association. The subject of his address will be "Genetic-dynamic versus Nosologic Teaching in Psychiatry."

MASSACHUSETTS GENERAL HOSPITAL

STAFF MEETING, MOSELEY MEMORIAL BUILDING, THURSDAY, DECEMBER 8, 1927, AT 8:15 P. M.

(1) Demonstration of Cases.

(2) Asthma, Its Classification and Treatment, Dr. F. M. Rackemann.

(3) Asthma, from the Standpoint of the Rhinologist, Dr. Harold Tobey.

Physicians, students and nurses are cordially invited to attend.

SYMPOSIUM ON SYPHILIS AT THE BOSTON DISPENSARY, 25 BENNET STREET

All members of the medical profession are cordially invited to attend a Symposium on Syphilis to be conducted by the Committee on Research of the Boston Dispensary, at 25 Bennet Street, on Thursday, December 15th, at 8 o'clock, P. M.

The following papers will be read:

1. "The Ophthalmoscope as an Aid in the Treatment of Syphilis." Joseph J. Skirball, M.D. Discussion: W. D. Rowland, M.D.

2. "The Morphology of Blood Syphilis." William Dameshek, M.D. Discussion: Ralph C. Larrabee, M.D.

3. "The Glycerol Cholesterol Precipitation Reaction." (a) "A Comparison of Its Results with those of the Wassermann, Kahn and Slide Tests in Sixteen Hundred Cases." Russell L. Splaine, M.D., Austin W. Cheever, M.D.

(b) "As a Diagnostic Criterion of Syphilis." Austin W. Cheever, M.D., Russell L. Splaine, M.D.

(c) "As a Means of Indicating the Necessity of Continued Treatment." Austin W. Cheever, M.D., Oscar J. Raeder, M.D., Russell L. Splaine, M.D

(d) "In the Diagnosis of Neurosyphilis." William A. Hinton, M.D., Oscar J. Raeder, M.D.

Discussion: George M. Lawson, M.D., C. Morton Smith, M.D., Harry C. Solomon, M.D., Henry D. Lloyd, M.D.

MAYNARD LADD, M.D., *President*.
BENJAMIN E. WOOD, M.D., *Secretary*.

THE BOSTON CITY HOSPITAL NURSES' ALUMNAE ASSOCIATION

This association will meet in the Thorndike Memorial Auditorium, Boston City Hospital, on Tuesday evening, December 6th, 1927, at 8:15 p. m. Dr. John A. Ceconi, Director, Department of School Hygiene, will speak on "The Reorganization Plan of the Department of School Hygiene, Boston Public Schools."

All members and their friends cordially invited.

BOSTON MEDICAL HISTORY CLUB

A meeting was held on November 18th, 1927, at the Boston Medical Library.

Dr. John W. Bartol, in the absence of Dr. George H. Monks, read the paper prepared by Dr. Monks on "Selections from the Medical Writings and Sayings of Dr. Oliver Wendell Holmes." The paper, divided into three parts, covered very thoroughly the writings of Dr. Holmes. Medical allusions were found in his addresses to students at the Medical School and elsewhere, in his poetry and in his prose. Dr. Bowditch and Dr. Bartol, both of whom remembered Dr. Holmes, added some personal anecdotes in regard to his character.

Mr. James Ballard then showed numerous books, pictures, and other articles from the collection in the Boston Medical Library relating to Dr. Holmes, the most important of which were: The manuscript dissertation of Dr. Holmes prepared for his medical degree (1836) and other manuscripts; his early papers on puerperal fever from the "New England Quarterly Journal of Medicine and Surgery," Boston, 1842-43, I, 503; the first edition of his first book of poems, 1836, and the first editions of his novels and other books; two large volumes of clippings collected at the time of Dr. Holmes' death; numerous pictures of Holmes, of which the Library has about fifty different poses; a caricature from Vanity Fair and the comments made at the time upon Holmes in the same magazine, which caused him so much displeasure; and other items of interest.

SOCIETY MEETINGS

December 1—Union Hospital in Fall River. See page 1072, this issue, for complete notice.

December 1—Massachusetts General Hospital. See page 0000, this issue, for complete notice.

December 6—Boston City Hospital Nurses Alumnae Association. Complete notice elsewhere on this page.

December 15—Boston Dispensary. Detailed notice appears on page 1072, this issue.

January, February, March and April, 1928—Last Saturday at 11 A. M. Cheever Amphitheatre, Staff Clinical Meetings at Boston City Hospital.

DISTRICT MEDICAL SOCIETIES

Essex North District Medical Society

January 4, 1928 (Wednesday)—Semi-annual meeting at the Centre Church vestries, Main Street, Haverhill, at 12:30 P. M.

May 2, 1928 (Wednesday)—Annual meeting at 12:30 P. M.

May 3, 1928 (Thursday)—Censors meet for examination of candidates at Hotel Bartlett, 95 Main Street, Haverhill, at 2 P. M. Candidates should apply to the Secretary, J. Forrest Burnham, M.D., 567 Haverhill Street, Lawrence, at least one week prior.

Essex South District Medical Society

December 7 (Wednesday)—Beverly Hospital. Clinic at 5 P. M. Dinner at 7 P. M.

Dr. P. E. Truesdale, Fall River, "Modern Trends of Medical Practice."

Discussion by Drs. P. P. Johnson and C. H. Phillips of Beverly, 10 minutes each, and from the floor.

January 4, 1928 (Wednesday)—Deer Cove Inn, Swampscott. Dinner at 7 P. M.

Dr. Frank Lahey, "Differential Points of Importance to the General Practitioner in Surgical Diagnosis."

Discussion by Drs. Walter Phippen of Salem and N. P. Breed of Lynn, 10 minutes each, and from the floor.

February 1 (Wednesday)—Council meeting, Boston.

February 8 (Wednesday)—Danvers State Hospital. Clinic at 4 P. M. Buffet supper at 6 P. M., followed by

Dr. Abraham Myerson, "Some Aspects of Mental Hygiene."

Discussion by Drs. W. F. Wood of Hathorne and G. M. Kline of Beverly, 10 minutes each, and from the floor.

March 7 (Wednesday)—Lynn Hospital. Clinic at 5 P. M. Dinner at 7 P. M.

Dr. Henry R. Viets, "The Acute Infections of the Nervous System," with lantern slides and moving pictures.

Discussion by Drs. W. V. McDermott of Salem and J. W. Trask of Lynn, 10 minutes each, and from the floor.

April 11 (Wednesday)—Essex Sanatorium, Middleton. Clinic at 5 P. M. Dinner at 7 P. M.

Dr. Raymond S. Titus, "Obstetrical Emergencies."

Discussion by Drs. J. J. Egan of Gloucester and A. T. Hawes of Lynn, 10 minutes each, and from the floor.

May 3 (Thursday)—Censors meet at Salem Hospital for the examination of candidates at 3:30 P. M. Candidates should apply to the Secretary, Dr. R. E. Stone, Beverly, at least one week prior.

May 8 (Tuesday)—Annual meeting. Place and speaker to be announced.

Suffolk District Medical Society

Combined meetings of the Suffolk District Medical Society and the Boston Medical Library will be held at the Boston Medical Library, 8 The Fenway, at 8:15 P. M., as follows:

December 28—Medical Section. "Functions and Organization of the Boston City Hospital."

January 25, 1928—General meeting in association with the Boston Medical Library.

Dr. George W. Crile, Lakeside Clinic, Cleveland, Ohio. Title to be announced later.

February 29—Surgical Section. Subject to be announced later.

March 28—Medical Section. "The Use and Misuse of Vaccines." Dr. Hans Zinsser, Dr. Francis M. Rackemann, Dr. Charles H. Lawrence.

April 25—Annual meeting. Election of officers. Paper of the evening to be announced later.

The medical profession is cordially invited to attend these meetings.

Notices of meetings must reach the JOURNAL office on the Friday preceding the date of issue in which they are to appear.

BOOK REVIEWS

Dreams. By PERCY GOLDTHWAIT STILES. Harvard University Press, Cambridge, Mass. 1927. 80 pages.

It is only in recent years that a knowledge of dreams and their meanings has reached a point where scientific analysis is possible. Before the twentieth century, the interpretation of dreams was so encumbered by the theories of mysticism and symbolism, or interwoven into religious beliefs and prophecies, or more important still, was so confused by the philosophies of the metaphysicians, Descartes, Locke and Kant, that a clear realization of their importance as indicators of the workings of the unconscious mind was impossible. Could we, at the present time, for instance, believe with Plato that dreams were "prophetic visions received by the appetitive soul through the liver"? We owe our present status of knowledge largely to the investigations of two modern scientists, Havelock Ellis and Freud.

Stiles, in his little book on dreams, finds much in common with Havelock Ellis, little with

Freud. The reason for this is obvious. Stiles deals only, or practically only, with the *manifest content* of his dreams and makes no attempt to evaluate the *latent content* and therefore penetrate into the deeper, more profound and, according to Freud, the more important meaning, or series of meanings, of dreams. If one is a Freudian the book by Stiles will seem superficial and practically useless except as an honest and sincere attempt on the part of the author to carefully narrate his own dreams. As such the book might be considered as sound material for further analysis, especially as Stiles has illustrated by pen sketches, with some skill, the essentials of the dreams, viewed in the light of the next morning.

On the other hand, much pleasure and amusement can be obtained from the book by those who are interested only in the manifest content of dreams and their apparent senselessness. Stiles, in jotting down his dreams for the last thirty years, must have had considerable enjoyment himself out of the task. He, nevertheless, has had a purpose besides the frivolous. His analysis of dream personality agrees reasonably closely with that of Ellis. "It," he says, "is, first of all, egotistical. The prevailing mood is one of self-satisfaction." Moreover, "the dreamer is in many respects a youth, alert, well-informed, but injudicious and undisciplined." He has much "in common with primitive man. There is the love of show, a partiality for ceremonial or pantomime, which— both in dreaming and in barbarism—may represent a compensation for an inadequate command of language. There is likewise a susceptibility to unreasoning and crippling fear." All of which is interesting, but not quite satisfying. We wish Stiles had attempted an analysis of the latent content of at least a few dreams in spite of his assertion of incompetency.

The Religion Called Behaviorism. By DR. LOUIS BERMAN. Boni & Liveright, Publishers, N. Y. 1927.

In this day and generation, when the popular demand for tabloid doses of scientific and pseudo-scientific knowledge seemingly exceeds the supply, it is not surprising that there are facile verbalists suffering from logorrhea who are writing a good deal and saying very little. Briefly the thesis of this new essay by the author of "The Glands Regulating Personality, Etc." is this. The world today is in crying need of a new religion. All the old schools of religion have been knocked into a cocked hat by the advances of modern science. The Watsonian school of Behaviorism has reduced life to a "product of muscle twitchings and gland oozings." Disheartened and disgusted with this view of life, men and women, especially the rising generation, are escaping from life by suicide. As an antidote to the morbid depressing reaction from the behavioristic theories, there is the Gestalt theory of Kohler, the essence of which is that there is no such thing as an isolated action, but that every action is but a part of a pattern which involves relationships with a whole.

The author has confused religion with theologies. He is seemingly forgetful of the religion of James, Gray, Schaler, Darwin, and endless leaders of thought. He forgets that though knowledge stirs doubts, wisdom dispels them. And having boxed the compass through materialism, behaviorism, gestaltism, he comes back to the thesis that the essence of the meaning of life is that every life, every action in life has a relationship and a place in that greater life called creation. The essence of love is such a relationship. How much is this thesis ahead of one advanced some time ago that "God is Love"?

Intracarnial Tumors and Some Errors in Their Diagnosis. By SIR JAMES PURVES-STEWART, K.C.M.G., C.B., M.D., (Edin.) F.R.C.P. Cloth, Pp. 206, with 51 illustrations. Great Britain: Humphrey Milford—Oxford University Press. 1927.

There are two main types of medical writing —One, that in which the writer includes everything in the way of information to which he has had access, including a complete bibliography, and the other a book or monograph in which only those facts are brought out which have a direct bearing on the subject under discussion. In this latter type references to the literature and negative evidence of all sorts are reduced to a minimum. For the research worker or the master in the subject under discussion the first type of literature is probably the most valuable. For the ordinary medical man, and especially for the clinician, whether he be a specialist in the subject under discussion or a general practitioner, the latter type is of greatest value. Here he can find a particular bit of information for which he is looking or, if he is studiously inclined and can devote an evening to real work, he will be well repaid by a mental meal in highly concentrated form.

Like many others of the Oxford Medical Publications, this little book falls in the latter class. It is all meat and mostly meat of high food value. Many pages are devoted to mistakes in diagnosis, and we are indebted to the author for a clean discussion of these mistakes which should go far toward helping the reader to avoid these pitfalls. Many of the cases quoted were studied before the days of modern diagnostic methods but that does not make them any the less valuable for the closer that one can arrive at a correct diagnosis without the use of these complicated and sometimes dangerous procedures, the better for our patients.